

University of Groningen

When great minds don't think alike

van der Kolk, Pieter Marius

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2017

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

van der Kolk, P. M. (2017). *When great minds don't think alike: An investigation of the conciliatory view on peer disagreement*. [Thesis fully internal (DIV), University of Groningen]. Rijksuniversiteit Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

WHEN GREAT MINDS DON'T THINK ALIKE



rijksuniversiteit
 groningen

When Great Minds Don't Think Alike

An Investigation of the Conciliatory View on Peer Disagreement

Proefschrift

ter verkrijging van de graad van doctor aan de
Rijksuniversiteit Groningen
op gezag van de
rector magnificus prof. dr. E. Sterken
en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

donderdag 7 december 2017 om 12.45 uur

door

Pieter Marius van der Kolk

geboren op 16 oktober 1984
te Heerenveen

Promotores

Prof. dr. J.W. Romeijn

Prof. dr. F.H. Hindriks

Beoordelingscommissie

Prof. dr. D. Cohnitz

Prof. dr. C. Dutilh Novaes

Prof. dr. A.J.M. Peijnenburg

For Casimir, without whom this book
would have been finished much earlier,
though with much less joy.

FOREWORD

Peijnenburg's Law says that there is always an emotional connection between a PhD-student and the topic of their dissertation. In my case, this is certainly true. My dissertation is about disagreement. And for almost as long as I can remember have I been puzzled by the question of how people can come to different opinions and, more critically, how to adjudicate on these different opinions—how to make a qualitative distinction between them. Which opinion should be favored over the other? And on what grounds?

Now, I don't want to say that with this dissertation I have solved these issues. Far from it. But what this dissertation *has* brought me is a nice orderly place inside my head full of tools and theories with which I can put these issues to rest. Because even though I'm still puzzled by differences of opinion, I now have the mental capacity to think them through, up to a level that somehow brings peace of mind.

So this project has been very rewarding for me. (It will of course also be very rewarding for the philosophical community, and probably the world at large, but that's neither here nor there.) There are many people that I would like to thank for this gift.

First and foremost, Jan-Willem Romeijn, my supervisor. I'm sure it wasn't always easy, supervising me in this project. And we have had our ups and downs. But you always kept believing, and you kept encouraging me, even when I was prepared to throw the towel. I've learned so much from you, both from what you as a philosopher have taught me, and from who you are as a person. Thank you.

Second, but also foremost, Frank Hindriks, my co-supervisor. The project turned out to be much more epistemological than anticipated. And unfortunately you were not able to take part in the final phase of the project. Nevertheless, your feedback was always relevant, and your suggestions have helped this project enormously. Thank you.

Third, the staff at the Department of Theoretical Philosophy: Catarina Dutilh Novaes, Leah Henderson, Fred Keizer, Barteld Kooi, Jan Albert van Laar, Emar Maier, Jeanne Peijnenburg, and Allard Tamminga. You have all at some point or another given input or feedback, from which this dissertation has only benefitted. Thank you.

Fourth, the supporting staff: Siepe Blom, Marga Hids, Hauke de Vries, and Anita Willems-Veenstra. You were always there when I needed help, and have made the administrative part of my life at the faculty so much easier. Thank you.

Fifth, my friend and office buddy through thick and thin: Marta Sznajder. Your humour and ability to make fun of me and yourself made the dark days of frustration and despair a lot brighter (often because you somehow managed to view your situation as even more deplorable than mine). Good times. Thank you.

Sixth, my friends from Lucky Queergress, or whatever we call ourselves these days: Coos Engelsma, Job de Grefte, Tom Sterkenburg, and Sander Verhaegh. I don't exactly know how or when it happened, but at some point our weird little group has grown into something that I see as real friendship. I hope that we will be able to continue our dinner sessions, now that we all have gone our separate ways, because they are always a true pleasure. Thank you.

Seventh, my friend Martijn Stronks. Our philosophical duels have sharpened my mind, and some insights from our conversations can be found in this dissertation, even if perhaps hidden under a thick layer of that beautiful, crystal clear, analytic philosophy, that you loath so much. As I also said at your promotion, I hope we can continue these duels for many years to come. Thank you.

Eighth, my friends from Wasemkapf: Pieter Boonstra, Rinze Douma, Bart Pool, Mart Jan Spaans, and Homme de Vries. In no way have you guys contributed anything to the contents of this project. (Let's just say that philosophy, or any subtle, abstract thinking for that matter, is not Wasemkapf's strong suit.) Still, you are very important to me, plain and simple, and have stood by me in the good times and the bad. Thank you.

Ninth, my family: Mamma, Jasper, Arnoud, Machteld, Philip, and Anneleen. The past year we have seen how fragile family is, but also how strong it can be. I hope that this promotion will be one of the new good memories we are going to create together. Thank you.

And the last place is reserved for Marritta, my best friend. In the past five years we have encountered pretty much all the major life events that are humanly possible; some stressful, some sorrowful, and some beautiful, but all of them together. I feel truly blessed to have had you as my companion all this time. I could not have done it without you. Thank you.

CONTENTS

1	INTRODUCTION	1
1.1	Skepticism and disagreement	4
1.2	Relativity and rationality	8
1.3	Overview	12
2	NO RATIONAL PEER DISAGREEMENT?	15
2.1	Introduction	15
2.2	Peer disagreement	15
2.2.1	The phenomenon	16
2.2.2	The problem	17
2.2.3	A multivalent question	18
2.3	The conciliatory view	19
2.3.1	The master argument	21
2.3.2	The thermometer analogy	22
2.4	Objections and replies	24
2.4.1	Skepticism	24
2.4.2	Symmetry	25
2.4.3	Self-defeat	30
2.5	Wiggle room	30
2.5.1	The problem	31
2.5.2	Disagreement	33
2.5.3	Peerhood	35
2.5.4	Rationality	38
2.6	The use of this project	40
2.6.1	Practical use	40
2.6.2	Theoretical use	41
2.7	Conclusion	42
3	DISAGREEMENT AND SUBJECTIVITY	43
3.1	Introduction	43
3.2	The disagreement assumption	48
3.2.1	Revisiting the master argument	48
3.2.2	A deflating continuation	49
3.2.3	Subjective peer disagreement	51
3.2.4	Rational response?	55
3.3	Indexicalism	56
3.3.1	Relative truth-values	56
3.3.2	Disagreement	58
3.4	Contextualism	60
3.4.1	Relative propositions	61
3.4.2	Disagreement	62
3.5	Peer disagreement	66

3.5.1	Subjective representation	67
3.5.2	Alternative response	69
3.5.3	The dilemma	70
3.6	Conclusion	73
4	PEERHOOD AND UNDERDETERMINATION	75
4.1	Introduction	75
4.2	The arrival claim	79
4.3	The uniqueness thesis	82
4.3.1	Three precisifications	82
4.3.2	The argument	85
4.4	Total evidence	87
4.5	Underdetermination	89
4.5.1	Evidential holism	90
4.5.2	Equivalent alternatives	92
4.5.3	Suspend judgment?	94
4.6	Constraining peerhood	96
4.6.1	Same epistemic entrenchment	97
4.6.2	Same theoretical virtues	99
4.6.3	Does it ever occur?	101
4.7	Conclusion	102
5	RATIONALITY AND PERMISSIVENESS	103
5.1	Introduction	103
5.2	The response claim	106
5.2.1	Recapitulation	106
5.2.2	Toward the response claim	108
5.2.3	A claim about rationality	110
5.3	The non-permissiveness thesis	111
5.3.1	White's jury case	111
5.3.2	Feldman's fork in the road	112
5.3.3	Ultimate peer disagreement	114
5.4	Rationality and utility	115
5.4.1	Epistemic utility	117
5.4.2	Actions in peer disagreements	119
5.5	The permissive alternative	120
5.5.1	Weighing the epistemic goal	120
5.5.2	Rationality in peer disagreements	122
5.5.3	Truth in the long run	125
5.6	Begging the question	129
5.7	Conclusion	131
6	CONCLUSION	133
7	SAMENVATTING	137
	BIBLIOGRAPHY	141

INTRODUCTION

We are continually confronted with the opinions and beliefs of other people. Some politician proclaims that global warming is a hoax. The weather forecaster says it is going to rain tomorrow. Your friend tells you that she believes we don't have free will. A central epistemological question in this regard is: how should we let our own beliefs be affected by the beliefs of other people?

Well, this depends on our goal. If we just want to have our own beliefs, no matter their plausibility or what other people think of them, then we don't need to care too much about the beliefs of others. Alternatively, if we only want to have popular, well liked opinions, then we should probably watch other people's beliefs carefully.

In epistemology, however, and in the context of this dissertation, we traditionally presume the *epistemic goal*—namely, to believe that which is true, and not to believe that which is false. That is to say, in our epistemological context, the goal is to form beliefs that are correct, and not incorrect. In this light, we can state the foregoing question more precisely: how should we let the formation of our own beliefs be guided by the beliefs of the people around us, given that we want our beliefs to be correct?

In some cases this seems easy enough. When some other person's belief does not in any way conflict with our own beliefs, then, more often than not, we can simply take over this belief without giving it too much thought. For example, when the weather forecaster says that it is going to rain tomorrow, and there is no reason for me to think that she is unreliable or trying to deceive me, then it seems I can follow her in believing that it is going to rain tomorrow.

But when some other person's belief *does* conflict with our own beliefs, things can get more complicated. For example, when some politician proclaims that global warming is a hoax, and I believe that global warming is real and happening, I may want to take a moment to reflect on what to believe here. After all, I want my belief to be correct. But maybe this other person's disagreeing belief is correct, in which case my own belief appears to be incorrect.

Still, sometimes these cases are not too problematic. For example, when I know that this politician is a puppet of oil companies, or when I take into consideration the overwhelming consensus in the scientific community that global warming is real, it seems I can safely dismiss this politician's belief to the contrary—it doesn't pose a real threat

to the correctness of my own belief. That is to say, when I have good reason to think that my belief is correct rather than the disagreeing belief expressed by some other person, then, given that it is my goal to have correct beliefs, it seems I should stick to my own belief, and ignore the belief of my opponent.

But sometimes disagreements cannot be so easily dismissed. In particular, sometimes we don't have good reasons to think that our belief is correct rather than someone else's disagreeing belief, except that we just think that our belief is correct (and perhaps also that the other person's belief is incorrect). For example, suppose that I believe that we have free will, and my friend tells me that she thinks we don't. And suppose that we have discussed this issue extensively, and that we have considered all the arguments pro and contra, but that ultimately I don't have a decisive reason or argument to think that my belief is correct rather than hers. What is in this case the sensible thing to do, given that I want my beliefs to be correct? Can I still retain my own belief, even though I don't have a good reason to think that it is correct rather than my friend's disagreeing belief?

Such disagreements have come to be known as *peer disagreements*, and they have been the subject of extensive debate in epistemology for the last ten years or so. We will come to speak in more detail about the term "peer" in the next chapter, but for now it should be seen as a technical term designed to capture a critical amount of similarity between two agents. That is to say, when someone disagrees with you, and this person is your peer, then, broadly speaking, this person is similar to you in such a way that there is just as much reason to think that your belief is correct as that the disagreeing belief of this other person is correct.

The origins of the debate about peer disagreement can be traced back to philosophy of religion and the issue of religious diversity (see, for example, Gutting [41], Meeker and Quinn [80]). There is of course widespread disagreement among people about religious issues. And what is more, there is also religious disagreement among people that are relatively similar in the sense that they are comparably intelligent, well-educated, and well-informed people—that is, there is also religious disagreement among *peers*. When you believe that, for example, the Christian god does not exist, probably there are people who are just as smart and informed as you are who disagree with you and believe that the Christian god *does* exist. And in this light, philosophers began to wonder: can it be *rational* to hold onto your religious beliefs, given that there are so many people, and even your peers, who disagree with you on this? That is to say, if we assume that you follow the epistemic goal and want your beliefs to be correct, and not incorrect, does such extensive disagreement leave you with sufficient reason to think that it

is your belief that is correct rather than the disagreeing belief of your opponents? Or does such peer disagreement perhaps undermine these reasons? (We are going to say more about what “rational” means in this context later on.)

The issue then got picked up by epistemologists who applied it to philosophical disagreements in general. Because in philosophy there is of course disagreement about almost everything (see also Bourget and Chalmers [6]). And philosophers, in general, and at least according to themselves, are intelligent, well-educated, well-informed creatures. So the question became: can it be rational to hold onto your philosophical beliefs, given that there are so many peer philosophers who hold beliefs to the contrary? (See, for example, the collection of papers in Feldman and Warfield [31], in particular Van Inwagen [109], Kornblith [61], Elgin [25], Fumerton [35].) For instance, suppose you believe the correspondence theory of truth. As you may know, there are many philosophers who disagree with you on this. Granted, there are also many philosophers who agree with you. But nevertheless, can it be rational for you to stick to your belief in the correspondence theory of truth, when you take into account that there are many excellent philosophers who think otherwise?

And the issue can be extended to everyday disagreements as well. For example, many people dismiss the conspiracy theories about 9/11. But there are quite a few seemingly intelligent, well-informed, well-educated people who believe at least some of these theories to be true. Some go as far as saying that 9/11 was an inside job, orchestrated by the American government. A more modest claim that is often heard is that the collapse of the World Trade Center towers could only result from a controlled demolition, and not from the impact of the airplanes. At any rate, can it be rational to continue to dismiss the conspiracy theories about 9/11, given the knowledge that there are quite a few seemingly intelligent, well-informed, well-educated people who believe otherwise?

These are just a few basic examples of what peer disagreements are. The operating question behind the debate about peer disagreement, and indeed this dissertation, is: how should we look at these peer disagreements? To return to our opening question: how should we let our beliefs be affected by the disagreeing beliefs of our peers, given that we want our own beliefs to be correct? What is rational in this respect? And this is where the *conciliatory view* comes in. The conciliatory view is a theory about what is rational in cases of peer disagreement. And it is this conciliatory view that we are going to closely examine in this dissertation.

The conciliatory view looks at peer disagreements with a dismissive attitude. That is, according to the conciliatory view, peer disagreements

are not rationally sustainable. And it says that we should let our belief-formations be guided by the disagreeing beliefs of our peers as follows. Upon learning that some peer has a belief that disagrees with a belief of our own, it is no longer rational for us to retain this belief. Instead, we should “conciliate” such that there no longer is a peer disagreement. What such a conciliatory move amounts to exactly is not entirely agreed upon, but in the context of this dissertation it comes down to giving up the disputed belief. (We are going to add more detail to how such a conciliatory revision can be interpreted in chapter 2.)

Thus, regarding the belief that the Christian god does not exist, or that the correspondence theory of truth is correct, or my beliefs regarding 9/11, the conciliatory view says: given that your peer disagrees with you on this, it is no longer rational for you to retain these beliefs, and you should give them up. The reasoning behind this, in short, is that the fact that your peer has reached a disagreeing belief casts sufficient doubt on the correctness of your own belief so as to make giving up this belief the rational course of action.

In this dissertation we are going to investigate this conciliatory view on peer disagreement. Should peer disagreements indeed be regarded with a dismissive attitude? Are they indeed not rationally sustainable? And, given that we want our beliefs to be correct, is the best way to let our beliefs be guided by the disagreeing beliefs of our peers indeed to make a conciliatory revision of these beliefs?

1.1 SKEPTICISM AND DISAGREEMENT

The conciliatory view is often regarded as a form of skepticism about rational belief (see also Frances [34], Matheson and Carey [78]). Similar to how, for example, Cartesian skepticism maintains that knowledge is not possible, given certain skeptical hypotheses, the central claim of the conciliatory view is that rational belief is impossible in the face of peer disagreement—that is, the disagreement from a peer can be seen as the social variant of the Cartesian skeptical hypothesis. The aim of this dissertation is to investigate what this skeptical claim of the conciliatory view exactly amounts to and the extent to which this claim holds. In order to further introduce the conciliatory view, as well as the aims and themes of our investigation of it, I would like to expand a bit on the analogy between classical Cartesian skepticism and the conciliatory view.

The story should be familiar. Dissatisfied with the dubitability of the beliefs he acquired throughout his life, René Descartes resolved to start from scratch, dismiss all beliefs that are open to doubt, and rebuild his belief system from the ground up by only admitting those beliefs of

which he was absolutely certain (for the whole story, see Descartes and Cottingham [18]).

So he sat himself by the fireplace, gazed into the flames, and began to ponder over what he was absolutely certain about. But soon he found that for almost every proposition that he considers, he can concoct a skeptical scenario that makes this proposition dubitable. For example, regarding all the things that he learned from his teachers, it could be the case that these teachers were all lying so that all these things are actually false. And regarding the information that he receives through his senses, he cannot eliminate the possibility that he is being deceived by an evil demon—a devilish genius that constantly tricks his mind with experiences of an external world that is not actually there—so that all this information is in fact not true. At this rate, it seems that very little, if anything, will remain that is absolutely certain.

This form of skepticism is nowadays known as *Cartesian skepticism* (for an overview, see Pritchard [89]). Its characteristic feature is to cast doubt on the things that we ordinarily take ourselves to know, or take to be absolutely certain, by invoking certain *skeptical hypotheses*. These skeptical hypotheses typically involve scenarios that are evidentially indistinguishable from what we ordinarily take ourselves to know, but, if true, would imply that we do not know this after all.

For example, consider the proposition that Paris is the capital of France. This is something that, if anything would classify as such, I would take myself to know, or to be absolutely certain. But now the Cartesian skeptic comes along and conjures up the skeptical hypothesis that I am subject to the so-called “brain-in-a-vat” scenario, the modern, Matrix-style, equivalent of Descartes’ evil demon scenario: I am just a brain, laying in a vat of nutrient liquids, with computers continuously feeding my brain with experiences. Given that this scenario might in fact be the case, says the Cartesian skeptic, I don’t really know that Paris is the capital of France after all.

Here is a somewhat less tremendous example (borrowed from Dretske [20]). Suppose that I am in the zoo, taking myself to know that the animals I am looking at are zebras. But again the Cartesian skeptic comes along and asks me to consider a skeptical hypothesis, namely that the animals are not zebras but cleverly disguised mules. Unless I can rule out that this alternative scenario is in fact the case, the Cartesian skeptic urges, I don’t actually know that the animals I am looking at are zebras.

Broadly speaking, the reasoning of the Cartesian skeptic proceeds in three steps (see also Unger [106]). The first step is what we can call *exclusivity*: it is either true that the ordinary hypothesis obtains—for example, that Paris is the capital of France, that the animals in the zoo are zebras—or it is true that the skeptical hypothesis obtains—that I

am a brain in a vat, that the animals are cleverly disguised mules. But they cannot be true simultaneously.

The second step is what we call *evidential symmetry*: the ordinary hypothesis and the skeptical hypothesis are evidentially speaking on a par—there is just as much evidence to think that the one hypothesis is true as that the other hypothesis is true. The reason for this is that the two hypotheses are evidentially indistinguishable—that is, there is no perceptible difference between the ordinary hypothesis and the skeptical hypothesis, and so it is not possible to tell from experiential evidence alone which of these hypotheses actually obtains. In other words, given my experiential evidence, it could be that Paris is the capital of France, and that the animals in the zoo are zebras, but it could also be that I am a brain in a vat, or that the animals are cleverly disguised mules.

And the third step concerns a certain conception of *knowledge*: if I can't rule out the possibility that the proposition that I take myself to know is actually false, then I do not really know this proposition. If, for instance, I am unable to ascertain that the animals I am looking at are not in fact cleverly disguised mules, then I cannot be said to know that the animals I am looking at are zebras.

The conclusion that is drawn by the Cartesian skeptic from these three assumptions is that we do not know very much, if anything at all. Insofar as we are unable to rule out the error-possibilities constituted by evidentially indistinguishable skeptical hypotheses, our claims to know the appertaining ordinary hypotheses do not hold true.

The reason I'm making this short excursion into Cartesian skepticism is that it provides a nice prop for introducing the conciliatory view and this dissertation's investigation of it. Because, first of all, the reasoning behind the conciliatory view is structurally similar to the Cartesian skeptic's reasoning. And secondly, what is different is that the role of skeptical hypothesis is now played by someone who disagrees with you, and the issue is with rationality rather than knowledge. And these last two aspects are precisely the two central topics of investigation in this dissertation. This is further explained in the next section. Let me first introduce the reasoning behind the conciliatory view.

In brief, the argumentation runs as follows (see, for example, Christensen [12], Elga [23], Feldman [29]). The first step is *exclusivity* again. The idea is that in a peer disagreement, either the belief of the one peer is correct, or the disagreeing belief of the other peer is correct. That is, the disagreeing beliefs of two peers cannot be both correct, at least one of the two peers must be mistaken. The second step is *evidential symmetry* again. Given the way that peer disagreements are set up, the disagreeing peers have just as much reason to think that their own belief is correct as that the disagreeing belief of the other peer is correct.

(This is just how peer disagreements are defined.) And the third step is a certain conception of *rationality*. When two disagreeing beliefs are evidentially speaking on a par this way, it cannot be rational to adopt or retain one of these beliefs regardless. That is to say, for a belief to be rational, there should be sufficient reason to think that this belief is correct, rather than some disagreeing alternative belief.

Consider the following example. We are both detectives, trying to find out who murdered the butler. After a thorough investigation of the crime scene, I come to the conclusion that his wife did it. You, on the other hand, believe that the butler was murdered by his employer. Naturally, these disagreeing beliefs cannot be both correct, at least one of us is mistaken. Now, recall that we have presumed the epistemic goal: I want my belief about who murdered the butler to be correct. The operating question behind the conciliatory view's argumentation is: what is the *rational* thing to do for me in this situation, given that I want my belief to be correct, and not incorrect? That is to say, which course of action best serves my epistemic goal?

Now, suppose that I am a very experienced detective, with a razor sharp mind, and that not once in my long career have I been wrong in these sorts of cases. And suppose that you are not very experienced, not too bright, and notorious for making sloppy mistakes when it comes to evaluating crime scenes. In that case, it seems rational enough for me to rely on my own opinion, and not care too much about your disagreement—there seems enough reason for me to think that it is my belief that is correct rather than yours.

Alternatively, suppose that we are equally experienced, smart, and reliable detectives, but that I have a new piece of evidence that you haven't seen yet. For example, I have just received a report that the butler's wife's fingerprints are on the murder weapon. In that case, it also seems rational for me to stick to my own conclusions, and ignore your disagreement—this new piece of evidence makes it likely that my belief is correct and not yours.

But now suppose that I don't have a good reason to think that my belief is correct rather than yours. For instance, suppose that we are not only equally experienced, smart, and reliable, but we also both have all the relevant information related to the murder investigation to our disposal—we have exchanged all this evidence and evaluated it carefully. And yet, I believe that the butler was murdered by his wife, but you think that his employer did it. Can it still be rational for me to stick to my own opinion, and disregard the fact that you—my equal in terms of evidence and reliability—have formed a contrary opinion? That is to say, can it be rational for me to retain my belief, even though I do not have good reasons to think that this belief is correct rather than your disagreeing belief?

The central claim of the conciliatory view is that this cannot be rational. When I have a certain belief, and I learn that you, my peer, have a disagreeing belief, it is no longer rational for me to retain my belief. And instead, I have to “conciliate”—that is, I have to revise my belief in the direction of your disagreeing belief. In the context of this dissertation, such a conciliatory revision is construed as suspension of judgment—that is, giving up one’s initial belief and taking a neutral stance between this initial belief and the disagreeing belief of one’s peer. (We come to speak about this in more detail in chapter 2.)

So, regarding our disagreement about who murdered the butler, the conciliatory view says that it cannot be rational for me to stick to my belief in the face of your peer disagreement, and that instead I need to make a conciliatory revision—that is, suspend judgment. And the reasoning behind this claim is similar in structure to how the Cartesian skeptic claims that knowledge is impossible in the face of evidentially indistinguishable skeptical hypotheses (see, for example, Christensen [12], Elga [23], Feldman [29]). The first step is exclusivity: only one of us can be correct. The second step is evidential symmetry: there is just as much reason to think that my belief is correct as that your belief is correct. And the third step is rationality: in such a case, it cannot be rational to adopt or retain my belief regardless.

We are going to examine this argumentation behind the conciliatory view more closely in chapter 2. For the purposes of this introduction, I now want to draw attention to the conciliatory view’s rather ambitious aspirations. It is perhaps not implausible to claim that a disagreement such as our disagreement above about who murdered the butler is not rationally sustainable. But the conciliatory view is generalized to *all* peer disagreements. That is to say, the conciliatory view says that, for *any* peer disagreement, it cannot be rational to retain one’s belief in the face of peer disagreement, and that instead one is required to make a conciliatory revision. In the next section I explain how this claim faces some serious challenges.

1.2 RELATIVITY AND RATIONALITY

We have seen how the argumentation behind the conciliatory view is structurally similar to the reasoning of the Cartesian skeptic. But there are also at least two important dissimilarities. The first dissimilarity is that, instead of a skeptical hypothesis casting doubt on the truth of some proposition, this role is now played by the disagreeing belief of a peer. That is, according to the conciliatory view, the fact that the disagreeing belief of this peer could be correct, rather than one’s own initial belief, casts considerable doubt on the correctness of this initial belief. The second dissimilarity is that, rather than the error-possibility

presented by a skeptical hypothesis making it impossible to *know* the appertaining proposition, now the error-possibility presented by the disagreement from a peer makes it impossible to *rationaly believe* the disputed proposition.

These dissimilarities are important because they open up two lines of questioning regarding the conciliatory view. The first dissimilarity invites an investigation of the possibility of *relativity*. When two people disagree, there can be some kind of relativity in play which can make both their disagreeing beliefs correct. To give a toy example, when I believe that there are five chairs in the room, and you believe that there are four chairs in the room, but I count the little stool in the corner as a chair too, while you don't, then we can both be regarded as correct relative to what we take to be chairs. (In contrast, this kind of relativity is typically absent when we consider the ordinary hypotheses and the skeptical hypotheses in the story of the Cartesian skeptic—it cannot be both true that the animals I am looking at are zebras *and* that they are cleverly disguised mules.) And this possibility of relativity seems to conflict with the conciliatory view's overall dismissive attitude toward peer disagreements. That is to say, in the above example, it seems misguided to require us to make a conciliatory revision. After all, why give up a belief that is correct?

And the second dissimilarity invites a closer inspection of *rationality*. Because maybe the inability to rule out a certain error-possibility makes it indeed impossible to know the appertaining proposition. But it is not obvious that the same goes for rational belief. To use the zebra example again, when I can't eliminate the possibility that the animals that I am looking at are not in fact cleverly disguised mules, perhaps I can indeed not be said to know that the animals are zebras. But, in the absence of further evidence to the contrary, it seems that it can certainly be rational for me to believe that they are. In a similar way, it can perhaps be argued that it can be rational to stick to one's belief in the face of peer disagreement, even if it is not possible to eliminate the possibility that this peer's disagreeing belief is in fact correct. After all, there are many different ways in which one can think about rationality. And it remains to be seen whether rationality must indeed be such that a conciliatory revision is the only rational response in any case of peer disagreement.

These two paths of inquiry—an investigation of the possibility of relativity in cases of peer disagreement, and an investigation of how to understand rationality—form the core of this dissertation. Here is a quick preview of what lies ahead.

Our central research question is this. Under what conditions is the conciliatory view the correct view on peer disagreement? That is to say,

when are peer disagreements indeed not rationally sustainable, and is a conciliatory revision the rational course of action?

Let me lead you through our investigation of this question by means of a hypothetical disagreement between you and me. Suppose I believe some proposition to be true, but then learn that you disagree with me on this. For the conciliatory view to be the appropriate view on our disagreement, I argue, there should first of all not be an excusing kind of *relativity* at issue in our disagreement. That is to say, it should not be the case that, relative to some relevant difference between us, there is nothing wrong with our disagreeing beliefs. And this precondition, if correct, has interesting ramifications for the sort of peer disagreements over which the conciliatory view can range.

First of all, it has ramifications for the sort of *topics* that peers can disagree about. To fall under the range of the conciliatory view, I argue, a peer disagreement must be about an issue that is objective. To see this, suppose that our example disagreement involves a subjective matter of taste—say, I believe that the comedian Eddie Izzard is funny, while you believe that he is not funny. In such a case, it seems implausible to presume that our disagreement is exclusive—that is, that only one of our disagreeing beliefs can be correct. Indeed, one could say that our disagreeing beliefs are both correct—relative to my sense of humor, it is true that Eddie Izzard is funny, and relative to your sense of humor, it is true that Eddie Izzard is not funny. I am going to argue that cases like this cannot fall under the scope of the conciliatory view, and that the scope of the conciliatory view must be limited to peer disagreements that involve issues that are objective. (Objectivity should in this context be understood as a form of subject-independence. I further explain this in due course.)

Secondly, the possibility of relativity has ramifications for the sort of *agents* that disagreeing peers can be. To fall under the range of the conciliatory view, I argue, disagreeing peers must be agents between whom there are no relevant epistemic differences whatsoever. To see this, suppose that, going back to our hypothetical disagreement, we are both members of a jury, tasked with deciding whether some defendant Smith is guilty. And suppose that I operate from the background theory that the key witness was lying, but that you don't have this theory. As a result of this, I believe that Smith is guilty, and you believe that she is innocent. In such a case, our disagreeing beliefs can both be said to be rational, relative to our different background theories. What I am going to argue is that such cases also cannot fall under the scope of the conciliatory view, and that the conciliatory view must be restricted to disagreeing peers between whom there are no relevant epistemic differences. (In brief, epistemic differences are differences between two

agents that can downstream have a differentiating effect on what is rational for them to believe. This is going to be further explained.)

These considerations, if correct, have interesting consequences for the scope of the conciliatory view. In order to eliminate the possibility of relativity, that is, the scope of the peer disagreements over which the conciliatory view ranges becomes increasingly restricted. First, as I argue, the conciliatory view can only range over peer disagreements that involve issues that are objective. And second, I argue, the conciliatory view can only range over disagreeing peers between whom there are no relevant differences. This makes the conciliatory view's central claim—namely, that, for any peer disagreement, it cannot be rational to retain one's belief in the face of peer disagreement, and that instead one is required to make a conciliatory revision—somewhat less grandiose, and appreciably more precise.

Having said that, there is a workaround for the conciliatory view. For it could be maintained that peer disagreements are not rationally sustainable even when there is an excusing kind of relativity in play. That is to say, in regard of the foregoing considerations, it might be objected that a conciliatory revision is rationally required even when the disagreeing beliefs are both correct, or both rational, relative to some relevant difference between the two peers. Alternatively, the other option is for the conciliatory view is to concede that peers are not rationally required to make a conciliatory revision in 'relative' cases, but to insist that it *is* the rational thing to do in cases where there is no relativity at issue. Either way, it brings us to the second part of the investigation, namely a closer inspection of *rationality*.

Our key question is this: is a conciliatory revision indeed the most rational course of action in cases of peer disagreement—that is, when there is just as much reason to think that one's own belief is correct as that the disagreeing belief of one's peer is correct? I am going to argue that this depends on how rationality is understood—more precisely, on how the epistemic goal we stated at the beginning is further interpreted. The epistemic goal, we said, is to attain correct beliefs and to avoid incorrect beliefs. But, as I am going to argue, this dual objective can be further interpreted in two different ways. On the one hand, the emphasis may be placed on avoiding incorrect beliefs. On the other hand, the attainment of correct beliefs can be made most important. The former interpretation, we will see, leads to a *restrictive* conception of rationality: for a belief to be rational, on this conception, there should be sufficient evidence to think that the belief is correct. And on such a restrictive conception of rationality, arguably, a conciliatory revision is indeed the most rational course of action when there is just as much reason to think that one's belief is correct as that some disagreeing belief is correct. But the latter interpretation, I argue, leads to a more

permissive conception of rationality: for a belief to be rational, on this conception, it merely needs to be the case that there is not enough evidence to think that the belief is incorrect. And on this permissive conception of rationality, a conciliatory revision is *not* the most rational course of action when there is just as much reason to think that one's belief is correct as that some disagreeing belief is correct.

For example, suppose that we are both scientists, working on some new medicine, and that I learn that your beliefs about this disagree with mine. If it is my primary aim to avoid incorrect beliefs, and I have no reason to think that my beliefs about the matter are correct rather than yours, then, presumably, it is no longer rational for me to stick to these beliefs. In the interest of avoiding incorrect beliefs, that is, I should give up these beliefs—make a conciliatory revision—since I don't have enough reason to think that they are not incorrect. However, if it is my primary aim to attain correct beliefs, then it *can* be rational for me to stick to my beliefs about the matter, even if I have no reason to think that these beliefs are correct rather than yours. The reason for this is that giving up my beliefs will leave me with nothing at all, whereas maintaining my beliefs at least gives me a shot at having beliefs that are correct.

All in all, I will argue that the conciliatory view is committed to a restrictive conception of rationality. However, as I will explain, there are also good reasons to think that an epistemic agent, or a community of agents, is sometimes better served by a permissive conception of rationality. And what is more, I will argue that the argumentation that has been offered to establish the contrary—that the conciliatory view's restrictive conception of rationality should be preferred over a permissive conception—is inconclusive. What this means is that the conciliatory view hinges on a conception of rationality that is merely optional, and not enforced. There is an alternative, more permissive conception of rationality available on which it can be rational for peers to disagree.

The result of these considerations, in sum, is an ever decreasing area of applicability for the conciliatory view. First, the conciliatory view should be limited to peer disagreements that involve issues that are objective. Second, the conciliatory view should be limited to disagreements between peers between whom there are no relevant differences. And third, the conciliatory view should be limited to a restrictive conception of rationality.

1.3 OVERVIEW

We have identified the conciliatory view as making a skeptical claim about rational belief in the face of peer disagreement. The concilia-

tory view looks at peer disagreements with a dismissive attitude, and claims that in cases of peer disagreement the most rational course of action is to make a conciliatory revision. In this dissertation we further investigate this conciliatory view on peer disagreement.

Our investigation of the conciliatory view is ultimately pragmatic. Our operating question is: what is required to make the conciliatory view *work*—what are the conditions and assumptions that need to be in place in order to make the conciliatory view the appropriate view on peer disagreement?

In chapter 2 I explain the conciliatory view in more detail, and investigate its main argumentation. The key message of this chapter is that the validity of the conciliatory view depends on the kind of disagreement at issue, on the exact definition of peerhood, and on how rationality is understood. These three variables, then, are investigated in the subsequent three chapters.

In chapter 3 I investigate and make more precise what needs to be assumed about the kinds of *disagreements* that fall under the scope of the conciliatory view. The result is twofold. First, the conciliatory view must assume that disagreements between peers cannot be interpreted as being ‘subjective’ in such a way that the disagreeing beliefs come out as being both correct. Second, this additional assumption imposes significant constraints on the scope of the conciliatory view.

In chapter 4 I further examine and make clear how disagreeing *peers* should be understood in order for them to fall under the scope of the conciliatory view. The result comes in the form of a dilemma. To make good on the claim that peer disagreements cannot be rational, the conciliatory view must either put heavy demands on the epistemic similarity of disagreeing peers, so that it is because of this epistemic similarity that the disagreement cannot be rational. Or the conciliatory view must take on board a rather skeptical notion of rationality, so that it is because of this notion of rationality that peer disagreements cannot be rational.

And in chapter 5 I investigate how *rationality* should be understood in relation to the conciliatory view. The investigation has three steps. First, I identify the conception of rationality that is required for the conciliatory view as being *non-permissive*, meaning that it does not permit adopting or retaining a belief state in cases of peer disagreement. Second, I develop an alternative, more *permissive* conception of rationality which *does* permit retaining one’s belief state in such cases. And third, I argue that the reasons that have been given to prefer the conciliatory view’s non-permissive conception of rationality over a more permissive one are inconclusive, and even question-begging.

And chapter 6 concludes this dissertation.

NO RATIONAL PEER DISAGREEMENT?

In this chapter I describe and evaluate the conciliatory view, according to which rational peer disagreement is impossible. The main message of this chapter is that the validity of the conciliatory view depends on the kind of disagreement at issue, on the exact definition of peerhood, and on how rationality is understood.

2.1 INTRODUCTION

In the previous chapter we saw how a new form of skepticism has emerged in the past few years—namely, the conciliatory view on peer disagreement. Just like classical skepticism challenges the possibility of knowledge given evidentially indistinguishable skeptical scenarios, so does the conciliatory view challenge the possibility of rational belief in the face of disagreement from epistemically similar peers. In this chapter I give a more detailed description, and evaluation, of this new form of skepticism.

To do so, I start out in section 2.2 with a description of the phenomenon of peer disagreement, followed by a statement of the problem that this phenomenon gives rise to. Then, in section 2.3, I introduce the conciliatory view on peer disagreement, and give an explanation of the master argument for this view. In section 2.4 I review some prominent objections to the conciliatory view, and state the traditional replies. And in section 2.5 I set the agenda, and lay out the groundwork, for the rest of the dissertation.

To give a quick preview, what has remained underexposed in the literature thus far are two central assumptions behind the conciliatory view. The first assumption is that in a peer disagreement at least one of the disagreeing peers must be mistaken. The second assumption is that rationality is such that a belief is rational only when there is sufficient evidence to think that this belief is correct. The overarching theme of this dissertation is to further investigate these two central assumptions.

In section 2.6 I explain why I think this investigation is useful.

2.2 PEER DISAGREEMENT

The conciliatory view is a particular answer to the problem of peer disagreement. Before further introducing the conciliatory view, I first

describe in this section the phenomenon of peer disagreement, and the problem of peer disagreement it precipitates.

2.2.1 *The phenomenon*

In brief, peer disagreement is the phenomenon of agents having formed disagreeing beliefs about a certain issue, despite the fact that they are each other's peers. Exactly when two agents count as each other's peers is one of the central questions of this dissertation, but the term "peer" habitually suggests some kind of similarity. Here are two typical, but different, construals of peerhood from the literature:

... two individuals are epistemic peers with respect to some question if and only if they satisfy the following two conditions: (i) they are equals with respect to their familiarity with the evidence and arguments which bear on that question, and (ii) they are equals with respect to general epistemic virtues such as intelligence, thoughtfulness, and freedom from bias. (Kelly [51, pp. 174–175]),

... you count your friend as an epistemic peer ... [when] you think that, conditional on a disagreement arising, the two of you are equally likely to be mistaken. (Elga [23, p. 487]).

We come back to the technicalities of the exact definition of peerhood in section 2.5.3. Moreover, we further specify what it is for peers to disagree in section 2.5.2. But let us for now say that two agents are each other's epistemic peers, or peers for short, when they are epistemically alike in a relevant way. And let us say that peers disagree when the one believes a certain proposition to be true, and the other believes this proposition to be false.

And, on an intuitive level, peer disagreement is a phenomenon that should not be too unfamiliar. Scientists who are just as well-trained, and who have studied the same data, every so often disagree about central scientific hypotheses. Juries and courts, consisting of equally intelligent people who have seen the same evidence, can sometimes be divided over a difficult case. And doctors who have received a similar education can give conflicting diagnoses after examining the same patient. Likewise, in everyday life, people who are just as smart and well-informed can have different opinions about political issues such as immigration or military interventions, or moral issues such as abortion or gay marriage, not to mention the wide divergence in religious and other worldviews. And finally, philosophers, of course, disagree about almost everything (see Bourget and Chalmers [6]), and have done so for the last 2,500 years.

So, disagreement between peers—agents who are epistemically alike in a certain way—is a familiar and common phenomenon. Why is it of epistemological interest?

2.2.2 *The problem*

The phenomenon of peer disagreement is of epistemological interest because it gives rise to an epistemological problem—namely, can peer disagreement be rational? That is, can it be rational for agents to disagree, given that they are each other's peers (see also Feldman [29, p. 201], or Kelly [51, p. 168])?

It is important to immediately flag an ambiguity in the problem of peer disagreement thus formulated. On one reading, which is dominant in the literature, the problem is whether it can be rational for peers to *retain* their disagreeing beliefs, given that the other person is a peer. On another reading, however, the problem is whether it can be rational for peers to *arrive at* disagreeing beliefs, given their epistemic similarity as each other's peers. We come back to this distinction in section 2.5.1. For now we follow the literature in focussing on the first reading.

To get a further grip on this problem, let me give an example (see also Christensen [12, p. 193], or Kelly [52, p. 111]). Suppose that you and I are professional weather forecasters, and that we are working out our predictions for tomorrow. Furthermore, suppose that we have studied the same meteorological data, that we are both intelligent people, and that we are equally well-trained in predicting the weather. That is to say, intuitively, you and I are each other's peers with respect to weather forecasting. Nevertheless, you and I reach different conclusions about the weather tomorrow: you predict that it is going to rain all day, and I predict that it is not going to rain. In other words, we are having a peer disagreement: we have formed disagreeing beliefs regarding the weather tomorrow, despite the fact that we are epistemically alike with respect to predicting the weather.

And the question that is raised in the debate about peer disagreement is whether such epistemically symmetrical disagreements can be rational. That is, can it be rational for us to disagree about the weather tomorrow, given that we are each other's peers on such issues? More specifically, can it be rational for me to retain my belief about the weather tomorrow after learning that you, my peer with respect to weather forecasting, have formed a disagreeing belief?

It is worth noting that in the background of this question lies the idea that epistemically *a*-symmetrical, or non-peer, disagreements *can* be rational:

No doubt people with different bodies of evidence can reasonably disagree. Suppose Early and Late both watch the

six o'clock news and hear the weather forecast for rain the next day. Early goes to sleep early, but Late watches the late news and hears a revised forecast, calling for no rain. When they get up in the morning, they have different beliefs about what the weather will be that day. We may assume that each is reasonable. (Feldman [29, p. 201]),

There are other cases as well in which I may shrug off the disagreement of others, not because I have better evidence than they, but because I have better judgment. If, in trying to help a young child with this arithmetic homework, I explain that he has made a simple error of addition—five plus seven is twelve, I try to remind him, not thirteen—I should be completely unperturbed if he should insist that, no, he is right; five plus seven, he tells me, really is thirteen. (Kornblith [61, p. 30]).

So the idea is that when my evidence is better than yours, or when I am a more competent evaluator of the evidence—that is, when I am your epistemic superior—or when you are not being sincere and just say things to contradict me, then it can be rational for me to retain my belief, and ignore your disagreement. And, similarly, when things are the other way around—when you are my epistemic superior—then, presumably, it is rational for me to revise my belief, in light of your disagreement (see also Elga [23, pp. 478–479]).

The case of interest, however, is when we are epistemically not different this way—that is, when you are just as sincere as I am, when we have considered the same evidence, and we are equally good thinkers and evaluators of our evidence, and yet we have arrived at disagreeing beliefs. Can it be rational for us to disagree? Can I rationally retain my belief and ignore your disagreement? Or should I perhaps revise my belief in light of your disagreement? This is what is called the problem of peer disagreement.

2.2.3 *A multivalent question*

Before moving on to the answer from the conciliatory view, I want to briefly note that the problem of peer disagreement forms a multivalent question—that is, a question that is open to different interpretations. Indeed, one of the central points of this dissertation is that any defensible answer to the problem of peer disagreement is going to depend on the interpretational details—most relevantly, on the sort of disagreement we are talking about, on how the notion of peerhood is exactly defined, and on how rationality is conceived of.

To get a little more specific, it seems that, on an intuitive level at least, it can make a difference whether the disagreement concerns a proposition with an objective truth-value or an issue that is more subjective and susceptible to some form of relativity. Similarly, regarding peerhood, it seems to matter if, for instance, the disagreeing peers are agents that are epistemically completely similar or agents between whom there are some subtle epistemic differences. And, importantly, there are also different ways in which rationality can be understood. For instance, one can think of rational belief as requiring conclusive evidence, but one can also think of it more leniently as only requiring the absence of counterevidence.

In the debate about peer disagreement, these concepts—disagreement, peerhood, and rationality—often remain somewhat vague, and open to different interpretations. The trouble is, however, as I also further explain in section 2.5, that different interpretations can lead to different answers. So it is important to get clear on these different interpretations and their effects. This clarification is the overarching theme of this dissertation.

2.3 THE CONCILIATORY VIEW

Parking the interpretational details for the moment, the answer from the conciliatory view is that it cannot be rational for peers to disagree. More specifically, the conciliatory view says that it cannot be rational to retain a belief that is disputed by a peer, and that instead the rational thing to do is to make a *conciliatory revision*—that is, to revise the disputed belief in the direction of the opposing peer’s.

What such a revision exactly amounts to depends mainly on one’s representation of beliefs. The peer disagreement literature distinguishes between two representations, namely *full beliefs* and *degrees of belief*. In a full belief framework—whereby the available doxastic attitudes regarding a proposition are belief, disbelief, and suspension of judgment—a conciliatory revision comes down to suspension of judgment, which is to move to a neutral state of neither belief nor disbelief (see, for example, Feldman [29]). In a degrees of belief framework, the available doxastic attitudes regarding a proposition lie on the range of real numbers between 0 and 1, with “0” representing absolute certainty that the proposition is false, and “1” absolute certainty that it is true. On this representation, a conciliatory revision amounts to moving one’s initial degree of belief toward that of the opposing peer’s.

Furthermore, in the degrees of belief framework, the extent of the conciliatory revision varies across different proponents of the conciliatory view. On the version of Christensen [12, p. 189], for example, the initial degree of belief should be revised “significantly” toward the

opposing peer's. But on the version of Elga [23], also called *the equal weight view*, the initial degree of belief should be revised all the way to the average of the two disagreeing degrees of belief. And there are many other such revision-policies available (see also Fitelson and Jehle [32], or Moss [83]). In this dissertation, however, we can set these variations aside, because we make use of the full belief framework. Thus, for our purposes, the conciliatory revision mandated by the conciliatory view is suspension of judgment. There are independent motivations for this dissertation's choice for a full belief framework, which I further explain in section 2.5.

Now, the most prominent defenders of the conciliatory view are Christensen [12–15], Elga [23, 24], and Feldman [28–30]. Other defenders include Bogardus [4], Cohen [16], Kornblith [61], and Matheson [74]. Why do they think that their conciliatory view is correct? What is the argumentation they offer for this position?

Defenders of the conciliatory view generally build their case on the basis of a single master argument. And this master argument typically takes its cue from an intuition pump like the following *restaurant case* (see Christensen [12, p. 193]; see also Elga [23, p. 486], or Feldman [29, p. 208]). Suppose that you and I just had dinner in a restaurant, and that we want to pay our bill. We decide to split the bill evenly, and you and I both mentally calculate our equal share. We have looked at the same bill, and I consider you to be just as reliable as I am in doing these mental calculations. However, you proclaim that our equal share is €43, whereas I think that we each owe €45.

Regarding such a case, defenders of the conciliatory view have reasoned as follows:

Given that my friend and I are generally reliable thinkers who have studied the same evidence, the fact that we disagree will be explained by the fact that at least one of us has made a mistake in this case. But intuitively, the explanation in terms of my friend's mistake is no more reasonable than the explanation in terms of my mistake. And I should acknowledge this by moving my belief toward hers. (Christensen [12, p. 198]),

One of us must be making some kind of mistake, or failing to see some truth. But I have no basis for thinking that the one making the mistake is him rather than me. And the same is true for him. And in that case, the right thing for both of us to do is to suspend judgment (Feldman [29, p. 212]).

Although this line of reasoning may seem quite intuitive, the actual argument remains somewhat implicit and broad stroke. In the next subsection I give a more explicit reconstruction.

2.3.1 *The master argument*

The foregoing argumentation for the conciliatory view involves three steps (see also Bogardus [4, p. 325], Cohen [16, p. 101], Elga [23, p. 487], or Matheson [74, p. 269]). The first step is the assumption that a peer disagreement means that something is *wrong*—that is, that at least one of the disagreeing peers has made a mistake somewhere. Another way of phrasing this assumption is to say that if neither of the two peers would have made a mistake, then they would not have been in disagreement. I call this the *disagreement assumption*.

It should be noted that the notion of “mistake” is vague. For instance, it could refer to a belief being *incorrect*—say, when something false is believed—or to a belief-formation that is somehow *irrational*—for example, when a belief is formed in a way that violates certain epistemic standards. We come back to this in section 2.5.2. But for now, regarding the restaurant case, the disagreement assumption seems intuitive enough. When you and I come to different answers with respect to the equal division of our bill, then the explanation of our disagreement is that at least one of us has made a mistake—we cannot both have calculated correctly.

The second step is the assumption that the disagreement from a peer creates a situation of *evidential symmetry* with respect to the question of who made the mistake. That is to say, given that the disagreement comes from someone who is epistemically similar in a relevant way, there is just as much reason to think that the mistake was made by oneself as that it was made by the opposing peer. Let us call this the *peerhood assumption*.

In the literature, the notions of “evidence” or “reason” often remain unspecified. In section 2.5.3 I will begin to make them more precise. But for now, let us follow convention and say that evidence, or a reason, is that which can make a belief rational (see also Kelly [54]). Thus, in the restaurant case, our bill serves as evidence for, and can make rational, my belief about how much each of us must pay. But also, your disagreement constitutes evidence against, and can make irrational, my belief that we both owe €45.

The third step is an assumption about rationality, namely that rationality is such that it cannot be rational to retain a belief in situations of evidential symmetry. That is to say, when there is just as much reason to think that one’s belief is mistaken as that it is not mistaken, then rationality does not permit holding on to this belief—instead, rational-

ity requires a revision. Another way to put the assumption is to say that, in order for a belief to be rational, there should be outweighing evidence to think that this belief is correct. This *rationality assumption* often remains implicit, but, as I argue in this dissertation, it is a crucial element in the case for the conciliatory view.

It is important to note that in the background of this rationality assumption lies the hidden assumption that our *epistemic goal* is to attain beliefs that are not mistaken, and to avoid beliefs that are, and, furthermore, that the way to achieve this goal is to form our beliefs in accordance with the evidence. Maybe explicating this background assumption seems superfluous, as it is so widely accepted in epistemology. But we shall see that, just like the rationality assumption, this presumed epistemic goal plays a pivotal role behind the conciliatory view. I come back to this in section 2.5.4.

So the argumentation behind the conciliatory view involves three assumptions. First, the disagreement assumption: a peer disagreement means that at least one of the peers must have made a mistake. Second, the peerhood assumption: when one's peer holds a disagreeing belief, then there is just as much reason to think that the mistake lies with oneself as with the disagreeing peer. Third, the rationality assumption: when there is just as much reason to think that one's belief is mistaken as that it is not mistaken, then rationality does not permit adopting or retaining this belief.

And the conclusion that is drawn from these assumptions is that it cannot be rational to disagree with a peer. Instead, when confronted with the disagreement from a peer, the only rational response is to revise the disputed belief—that is, given our choice for a full belief approach, suspend judgment.

2.3.2 *The thermometer analogy*

The intuitive plausibility of this argumentation for the conciliatory view on peer disagreement is sometimes stressed with an analogy like the following (see Christensen [12], Enoch [26], or Kelly [52]).

Suppose that I am in a room with a thermometer, and that the thermometer indicates a temperature of 18°C. So I believe that it is 18°C in the room, or at least this might be considered rational. But now suppose someone gives me a second thermometer, and that this thermometer indicates that it is 20°C. In that case, I am inclined to think that at least one of the thermometers must be malfunctioning—after all, the temperature in the room can't, presumably, be both 18°C and 20°C. However, assuming that the thermometers have received the same input—namely, whatever temperature the room is—and, from what I can see, seem equally well equipped to process that input, I have no reason to think

of the one thermometer that it is malfunctioning, rather than the other. That is to say, it is irrational for me to rely on one of the thermometers, and believe that it is, say, 18°C, because the other thermometer is by all appearances completely similar and it indicates that it is not 18°C. So there is at this point no reason for me to prefer the one thermometer over the other. Therefore, judgment should be suspended about the temperature in the room.

(It should be noted that the rationality of this response may change once more information is added to the story, for instance about the reliability of the thermometers. When the thermometers are not very reliable, for example, then it might also be considered rational to take the average of the two thermometers. Alternatively, if the thermometers are extremely reliable, then it might be considered rational to infer some kind of relativity in the temperature. We come to speak of this in more detail in chapter 3.)

Such a situation, it is argued, is analogous to disagreements between peers. Now, when we consider the restaurant case, where we disagree about the division of the bill, the analogy seems not inappropriate. First, just like the two thermometers, it seems that at least one of us must be mistaken (the disagreement assumption). Second, as you are by all appearances my equal with respect to mental calculations, there seems to be no reason for me to think that the mistake must be yours rather than mine (the peerhood assumption). And third, in such a case it does not seem rational to nevertheless stick to my own calculation, as I do not seem to have enough reason to think that this calculation is correct (the rationality assumption).

However, when we consider other, less clear-cut peer disagreements—such as peer disagreements in science, or law, or philosophy—it seems somewhat oversimplified and optimistic to say that disagreeing peers are always just like two equal thermometers that give different outputs so that judgment should be suspended as to which output is correct. There remains quite some wiggle room in the assumptions behind the conciliatory view.

First, regarding the disagreement assumption, it can be questioned whether a peer disagreement always implies that at least one of the parties is mistaken, like we saw in the restaurant and the thermometer case. Perhaps it could be that—in a more complex scientific case, for example—the disagreeing beliefs of two peers are both correct in some sense, or that the disagreeing beliefs are both rational on the basis of their shared evidence.

Second, regarding the peerhood assumption, it can be questioned whether a peer disagreement always creates a situation of evidential symmetry. That is, taking the disagreement assumption for granted, does the disagreement from a peer necessarily entail that there is just

as much reason to think that the mistake was made by oneself as that it was made by the disagreeing peer? One could think, for instance, that the fact that one has access to one's own belief-forming process and not to that of the disagreeing peer counts against the situation being evidentially completely symmetrical.

Third, regarding the rationality assumption, it can be questioned whether a peer disagreement always means that a conciliatory revision is rationally required. That is, taking the peerhood assumption for granted, is rationality indeed such that it cannot be rational to retain a belief when there is just as much reason to think that this belief is mistaken as that it is not mistaken? It seems that, on a conceptual level at least, there might be a more lenient notion of rationality on which this course of action can be regarded as rational.

I come back to this wiggle room in section 2.5, particularly the wiggle room in the disagreement assumption and the rationality assumption. The peerhood assumption is mainly discussed in the next section, where we look at some prominent objections to the conciliatory view as well as some influential replies.

2.4 OBJECTIONS AND REPLIES

Naturally, philosophers being philosophers, there is disagreement about peer disagreement, and the conciliatory view has received its fair share of objections (for an overview, see also Goldman and Blanchard [39], or Matheson [77]). In this section I discuss three of the more prominent objections: first, the objection that the conciliatory view leads to excessive *skepticism*; second, the objection, or actually a cluster of objections, against the peerhood assumption that peer disagreements always constitute evidential *symmetry*; and third, the objection that the conciliatory view is *self-defeating*.

2.4.1 *Skepticism*

A general worry about the conciliatory view is that it would entail an unpalatable amount of skepticism. If we must indeed make a conciliatory revision of our beliefs whenever one of our peers has a disagreeing belief, then it looks as if we must revise many of our beliefs, and perhaps all of our more controversial beliefs. After all, disagreement is widespread, even among peers. For many of our beliefs, and probably all of our more controversial ones, we can find a peer who holds a disagreeing belief. Elga [23, p. 484] phrases the worry well (see also Christensen [13, pp. 757–758]). About the implications of the conciliatory view for peer disagreements, he says:

Typically, it will follow that you ought to suspend judgment on the issue. Since it seems that you are in this circumstance with respect to a great many issues, the equal weight view [or, the conciliatory view] requires you to suspend judgment on all of these. Do you have any convictions on controversial political, philosophical, or scientific matters? The equal weight view seems to say: kiss them goodbye. It is implausible that rationality requires such spinelessness.

The traditional reply to this objection is that the extent of skepticism entailed by the conciliatory view depends on how peerhood is defined (see Elga [23, pp. 492–494], King [56]). Recall from section 2.2.1 that we assumed for the moment that peers are agents who are epistemically alike in a relevant way. But the extent of the required epistemic similarity may vary. On a strict definition of peerhood, whereby the required epistemic similarity is extensive, few agents will count as peers. This means that peer disagreement will not be as widespread, and so the skepticism entailed by the conciliatory view will be limited. But the more leniently peerhood is defined, the larger the amount of skepticism entailed by the conciliatory view will be.

This raises the question of how strictly peerhood should be defined. Part of this dissertation is devoted to precisely this question. More specifically, one of the central questions pursued in this dissertation is what needs to be assumed about disagreeing peers—how epistemically similar they have to be—in order for the conciliatory view to apply. To give a quick preview, our answer is that the conciliatory view requires a rather strict definition of peerhood—namely, one on which peers are in effect identical epistemic agents. This enables a clear view on the amount of skepticism entailed by the conciliatory view.

2.4.2 *Symmetry*

There is a cluster of objections against the conciliatory view that are all targeted at the same point—namely, the peerhood assumption that peer disagreement always creates a situation of evidential symmetry with respect to the question of who made the mistake. The general trajectory of these objections is to create some room between, on the one hand, the conception of peerhood as agents who are epistemically similar in a relevant way, and, on the other hand, the assumption that this constitutes complete evidential symmetry with respect to two peers' disagreeing beliefs. That is to say, these objections are all attempts to somehow break the symmetry between two peers' disagreeing beliefs, while preserving these peers' overall epistemic similarity. And the idea would then be that, contra the conciliatory view, it *can* be rational to retain a belief in the face of peer disagreement because, contra the

peerhood assumption, there is *not* always just as much reason to think that the mistake was made by the one peer as that it was made by the other peer.

In this vein, a first objection, from Kelly [51, 52], is that an agent should be allowed to retain her belief in the face of peer disagreement when this belief is *in fact* the most rational, given the shared evidence of the two peers (see also Bergmann [3]): Here is Kelly [52, p. 35]:

Against [the conciliatory view], I have argued that there is at least one type of situation in which one is not required to split the difference with a peer who disagrees. Specifically, if you and I have arrived at our opinions in response to a substantial body of evidence, and your opinion is a reasonable response to that evidence while mine is not, then you are not required to give equal weight to my opinion and to your own. Indeed, one might wonder whether you are required to give any weight to my opinion in such circumstances.

There is indeed something peculiar about the conciliatory view in this respect. In light of the presumed epistemic goal of attaining correct beliefs and avoiding incorrect ones, it seems rational enough to revise a belief when it is mistaken, but less so when it is not. However, in a peer disagreement, such as the restaurant case for example, it may very well be that only one of the disagreeing peers is mistaken, and that the other peer has in fact calculated correctly. And in that case, it seems odd to require both peers to make a conciliatory revision, as one of them will be revising a belief that was correct.

However, defenders of the conciliatory view have traditionally replied that, on their view, the rationality of a belief-formation depends on whether an agent, from an internal perspective, has sufficient reason to think that the belief is correct, and not on whether, from an external perspective, the belief is in fact correct (see also Christensen [13, p. 761]). In other words, the conciliatory view presupposes an *internalist* conception of rationality, according to which “all the factors that determine the rationality (justification) of a belief must be internal to the subject’s cognitive perspective, in the sense that they must be accessible to her upon reflection” (De Ridder [17, p. 187]). The objection from Kelly, on the other hand, seems to require an *externalist* conception of rationality, according to which rationality can also depend on factors that lie outside an agent’s cognitive perspective. After all, who has *in fact* formed the correct, or the most rational belief, is typically a piece of information that is not accessible through reflection alone (see also Enoch [26] and De Ridder [17]). Here is how Elga [23, p. 487] puts it:

When you learn of your friend's opposing judgment, you should think that the two of you are equally likely to be correct. The reason is the same as before. If it were reasonable for you to give your own evaluation extra weight—if it were reasonable to be more than 50% confident that you are right—then you would have gotten some evidence that you are a better evaluator than your friend. But that is absurd ... Again, this absurdity is independent of who has in fact evaluated the claims properly. Even if in fact you have done a much better job than your friend at evaluating the claims, simply comparing your verdicts to those of your friend gives you no evidence that this is so.

In other words, the only way in which, according to the conciliatory view, it can be rational for you to retain your belief in the face of peer disagreement is when you have, internally, enough reason to think that it is your belief that is correct and that the mistake lies with your opposing peer. In this light, Kelly's objection fails to conflict with the conciliatory view.

Although I think that Kelly's objection is important in its own right—we also come back to it in chapter 3—if the goal is to really counter the conciliatory view, then a more effective strategy would be to try and break the symmetry on the conciliatory view's own internalist grounds. That is to say, a more persuasive objection against the conciliatory view would be to come up with an internal reason for you to think that the mistake lies with your opposing peer, while preserving the overall epistemic similarity between you and your peer. The following two objections aim to do precisely this.

The first objection is that, internally speaking, there is something intrinsically asymmetrical to peer disagreements—namely, that one of the disagreeing beliefs is *yours* (see Enoch [26], Wedgwood [112]). And it is argued that it can be rational to have a certain fundamental trust in your own belief-formations, as opposed to the belief-formations of others (see also Foley [33]). As Wedgwood [112, p. 242] puts it:

... it is rational to have a sort of *egocentric bias* in forming beliefs ... It is rational for my background beliefs, experiences, memories and intuitions to guide me directly in a way in which it is simply not possible for your beliefs, experiences, or intuitions to guide me directly.

It is this supposedly rational egocentric bias, the objection goes, that makes it rational, at least sometimes, to favor your own belief in cases of peer disagreement, despite the fact that the opposing peer is by all appearances epistemically similar.

Before stating the reply from the defenders of the conciliatory view, let me first describe the second, related objection, because the reply applies to this objection as well.

The second objection is that it can sometimes be sufficiently clear who of two disagreeing peers made the mistake. For example, consider the restaurant case we saw earlier, but now suppose that I think that our equal share is a wildly implausible €450, while you have an initially much more plausible calculation of €43. In that case, it is argued, it seems not rational for you to revise your belief on the basis of my disagreement, even if you consider me to be your peer with respect to mental calculations. Here is, for example, Christensen [12, p. 201]:

... given what it's reasonable to believe about the reasoning supporting my friend's and my differing beliefs, it seems that the best explanation of our disagreement here lies in my friend's error. This is why I should not significantly revise my belief.

A variation on this example is when, in the restaurant case, you check your calculations repeatedly, and you keep getting the same result of €43—so you become increasingly confident that this indeed our equal share—but I keep insisting that our share is €45. In that case, it seems also rational for you to ignore my disagreement and stick to your belief that the correct answer is €43 (see Sosa [100]; for similar examples, see Lackey [65, 66], or Worsnip [117]).

In sum, then, what ties these two objections together is that they aim to provide an internal reason for an agent that can make it, contra the conciliatory view, rational for her to retain her belief in the face of peer disagreement. The first was that it can be rational to have a certain fundamental trust in one's own belief-formations. The second was that it can sometimes be sufficiently clear that the mistake lies with the opposing peer.

But the reply remains the same. The defenders of the conciliatory view can simply appeal to the definition of peerhood, and reply that the above internal reasons beg the question against a disagreeing peer (see also Christensen [12, p. 197] and Elga [23, p. 487]). That is to say, if in a disagreement I consider you to be my peer, then, by definition, I consider you to be epistemically similar to me in a relevant way. But if, in such a case, I nevertheless retain my belief—be it because I have a certain fundamental trust in my own belief-formations, or because it is sufficiently clear to me that the mistake was yours—then this begs the question against your presumed epistemic similarity. After all, if I indeed regard you as epistemically similar to me, then it seems that I should place the same fundamental trust in your belief-formations, and, by the same token, it seems that there can't be more reason for

me to think that the mistake was yours than that it was mine (see also De Ridder [17, p. 192]).

Indeed, it looks as if we have reached a conceptual stalemate here. Whenever an objector comes up with a way to break the symmetry between two peers, so that there is an internal reason for an agent to think that the mistake lies with the other peer, a defender of the conciliatory view can reply that this violates the conventional definition of peerhood. That is to say, the defender of the conciliatory view can always resort to the following dilemma. If there is, in a disagreement, some reason for an agent to think that it is the other agent who made the mistake, then this disagreement cannot count as a peer disagreement, because there is a relevant epistemic dissimilarity between the two agents. And if there are *no* relevant epistemic dissimilarities between two agents, then their disagreement *does* count as a peer disagreement, but then there also cannot be a reason for the one agent to think that it is the other agent who made the mistake.

I'm not sure that this dialectic about the peerhood assumption is very constructive. It seems that this way the debate about peer disagreement turns into a discussion about the semantical question of when two agent's are each other's peers. Furthermore, one would think that one of the central motivations for the whole debate about peer disagreement in the first place—and what makes peer disagreement an interesting problem—is the question of what rationality requires when there is no reason whatsoever to think that your belief is correct rather than that of a disagreeing peer.

In this dissertation, at any rate, I set this dialectic aside, and regard the peerhood assumption as the starting point, the defining feature, of the conciliatory view. That is to say, for the purposes of my investigation of the conciliatory view, I grant the conciliatory view the assumption that peer disagreement creates a situation of evidential symmetry with respect to the question of who made the mistake. (To be sure, this is not to say that the notion of peerhood is not going to be investigated in this chapter. It is the central topic of chapter 4.)

Instead, what I want to focus on in this dissertation are the conciliatory view's other two assumptions: the disagreement assumption and the rationality assumption. More specifically, this dissertation pursues two main questions. The first question is whether a peer disagreement means that a mistake must have been made in the first place. The second question is, if indeed a mistake must have been made, whether the presumed evidential symmetry implies that a conciliatory revision is indeed the only rational response.

This is further explained throughout the remainder of this chapter. First, however, I should mention one other prominent objection to the conciliatory view.

2.4.3 *Self-defeat*

A last prominent objection to the conciliatory view is that it would be self-defeating. More precisely, it is the suggestion that it cannot be rational to uphold the conciliatory view, on pain of inconsistency. The problem is explained by Elga [24, p. 179] as follows:

Suppose that you have a conciliatory view on disagreement, but you find out that your respected friend disagrees. He has arrived at a competing view (about disagreement) and tells you all about it. If your conciliatory view is correct, you should change your view. You should be pulled part way toward thinking that your friend is right. In other words, your view on disagreement requires you to give up your view on disagreement.

Elga [24] also develops a reply to this objection. His solution is that a conciliatory revision is the rational response to cases of peer disagreement, except when the disagreement is about how to rationally respond to peer disagreement. In that case, it is rational to retain one's belief that the conciliatory view is correct. And Elga [24, pp. 11–12] says that, despite its appearance, this is not an ad hoc restriction on the conciliatory view, because any fundamental policy or rule must be dogmatic with respect to its own correctness, on pain of inconsistency:

To put forward our recommendations about [disagreement] *is* to put them forward as good recommendations. And we can't consistently do that while also claiming that contrary recommendations are superior. So our always rating ourselves #1 does not result from an arbitrary or ad hoc exception to our standards. We are forced to rate ourselves #1 in order to be consistent.

I think this is an intriguing reply to an equally intriguing problem. However, I'm afraid that a more detailed analysis lies beyond the scope of this dissertation (for further discussion of the self-defeat objection, and Elga's reply, see Matheson [76], or Weatherson [111]). As indicated above, in this dissertation I want to focus on other issues. These are further explained in the next section.

2.5 WIGGLE ROOM

We have seen a first description of the phenomenon peer disagreement, and the epistemological problem that this phenomenon gives rise to—namely, whether peer disagreement can be rational. Then we looked

at the central argumentation for the conciliatory view—according to which rational peer disagreement is impossible—and considered some prominent objections and their replies. It is now time to set the agenda, and lay out the groundwork, for this dissertation’s further investigation of the conciliatory view.

As we have seen, many authors have already targeted the conciliatory view’s peerhood assumption. What has remained relatively underexposed in the literature, however, are the conciliatory view’s other two assumptions. First, the disagreement assumption that a peer disagreement means that a mistake must have been made. And second, the rationality assumption that it cannot be rational to retain a belief when there is just as much reason to think that it is mistaken as that it is not mistaken. My investigation of the conciliatory view centers around these two assumptions.

We noted in section 2.2.3 that any defensible answer to the problem of peer disagreement is going to depend on the sort of disagreement we are talking about, on how the notion of peerhood is exactly defined, and on how rationality is conceived of. And in section 2.3.2, we hinted at the wiggle room in the conciliatory view’s assumptions of disagreement, peerhood, and rationality—that is, the room that these assumptions leave for different possible interpretations and precisifications which, importantly, do not all necessarily accord with the conclusion of the conciliatory view. In this section I pick up these threads, and explain how this wiggle room is going to be investigated in this dissertation.

In order to do so, I should start with the wiggle room in the problem of peer disagreement itself.

2.5.1 *The problem*

The problem of peer disagreement, as formulated in section 2.2.2, was whether peer disagreement can be rational. And we said that there are at least two ways in which this problem can be interpreted. On the first interpretation, which is the one most often discussed in the literature, the problem is whether it can be rational for peers to retain their disagreeing beliefs, given that the other agent is a peer. As Kelly [52, p. 112] puts it:

[O]nce you and I learn that the other has arrived at a different conclusion despite having been exposed to the same evidence and arguments, how (if at all) should we revise our original views?

Thus, the first problem is what a rational response is for an agent to the information that an agent whom she considers to be her peer has formed a disagreeing belief. I call this the *response problem*. And as to

the available responses, in our full belief approach the relevant options are twofold: an agent can either retain the disputed belief, or revise it—that is, suspend judgment.

On the second interpretation, on the other hand, the problem is whether peers can have rationally *arrived at* disagreeing beliefs, given their overall epistemic similarity as each other's peers. That is, in the words of Christensen [12, p. 190], is it possible for two agents to “share all relevant evidence, react to that evidence faultlessly, and yet reach different conclusions”? So here the question is whether it is possible for two peers to form disagreeing beliefs without having made a mistake in doing so. Let us call this the *arrival* problem. (I disambiguate the notion of “mistake” presently.)

So we have two problems of peer disagreement. The arrival problem is, to put it colloquially, whether a peer disagreement means that something must be *wrong*, and the response problem is whether a peer disagreement means that something must be *done*.

(Note that these two problems are not necessarily interdependent. That something is wrong—that one of the disagreeing peers made a mistake—does not automatically entail that something must be done—that some conciliatory revision must take place. For instance, it is sometimes thought that maintaining diversity of opinion, even if in the long run these opinions cannot all be correct, can be beneficial for a scientific community. Similarly, that something must be done does not automatically entail that something was wrong. For instance, two disagreeing peers can have both been perfectly rational in forming their disagreeing beliefs respectively, while learning of their disagreeing beliefs makes it rational for them to make a conciliatory revision. We return to this independence in chapters 4 and 5.)

We have seen that the answer from the conciliatory view is affirmative to both problems. Regarding the arrival problem, the conciliatory view says—through the disagreement assumption—that a peer disagreement implies that at least one of the peers must be mistaken: peers cannot arrive at disagreeing beliefs and both be rational. We call this the *arrival claim*. And regarding the response problem, the conciliatory view says that it cannot be rational to retain one's belief in the face of peer disagreement, and that instead a conciliatory revision is required. We call this the *response claim*.

In the next three subsections I explain how substantial further constraints and assumptions need to be in place regarding the key concepts *disagreement*, *peerhood*, and *rationality*, in order for these two claims from the conciliatory view to be viable.

2.5.2 Disagreement

The notion of “belief” conventionally refers to the attitude an agent has when she considers something to be true (see also Schwitzgebel [97]). More specifically, to believe something is to have an affirmative attitude regarding the truth of a proposition, whereby “proposition”, at least for the moment, can simply be regarded as something that can be true or false. Thus, to believe something is to consider a proposition to be true. By the same token, to disbelieve something is to consider a proposition to be false, and to suspend judgment is to neither consider a proposition to be true nor consider it to be false. My generic term for these three attitudes is “belief state”.

In this light, as also noted in section 2.2.1, a peer disagreement can be represented as the one peer believing a certain proposition to be true and the other peer believing this proposition to be false—that is, disbelieving it.

It is regarding such a situation that defenders of the conciliatory view put forward their disagreement assumption—namely, that whenever two peer disagree, at least one of them must be mistaken. Recall from Christensen [12, p. 198]: “the fact that we disagree will be explained by the fact that at least one of us has made a mistake”. Another way of putting this assumption would be to say that if neither of the two peers would have made a mistake, then they would not have formed disagreeing beliefs.

This assumption triggers at least two questions. First, what is it to have made a mistake exactly? Second, why should all peer disagreements involve such a mistake?

Regarding the first question, in our epistemological context, there are at least two relevant interpretations (see also Lasonen-Aarnio [68, p. 769]). First, to have made a mistake can mean to have adopted a belief state that is *incorrect*, whereby an incorrect belief state is either to believe a proposition that is false or to disbelieve a proposition that is true. Second, to have made a mistake can mean to have formed a belief in a way that is somehow *irrational*—that is, in a way that violates certain epistemic standards, for example when the belief lacks adequate evidential support. The distinction is relevant because a belief that is incorrect does not have to be irrationally formed, nor does an irrationally formed belief have to be incorrect. Perhaps there are more interpretations of what it is to make a mistake, but I will confine myself to these two, for the following reason.

Regarding the second question, there are two proposals according to which all peer disagreements must involve a mistake. The first is the natural suggestion that whenever two peers disagree, then only one of their disagreeing beliefs can be correct. After all, if the one peer believes

a proposition to be true, and the other believes this proposition to be false, and this proposition is either true or false, then one of their beliefs must be incorrect. Here is, for example, Feldman [29, p. 200]:

If you think that God exists, then, on pain of inconsistency, you must think that anyone who denies that God exists is mistaken. You must think that this person has a false belief.

The second proposal is called the *uniqueness thesis*. According to this thesis, there can be only one rational belief state regarding a proposition, given a body of evidence (see Feldman [29], Matheson [75], White [113]). Hence, assuming that two peers have the same evidence, at least one of their disagreeing beliefs must be irrational. In the next subsection I explain the wiggle room with respect to this second proposal. In this subsection I concentrate on the first proposal.

So the suggestion is that whenever two peers disagree, at least one of them must be mistaken in the sense of having a belief state that is incorrect. However, natural though it may seem, there are other philosophical debates about disagreement in which it is precisely this suggestion that is under discussion. Perhaps most telling is the debate in philosophy of language about *taste disagreement* (see, for example, Kölbel [58], Lasersohn [67], MacFarlane [72]).

The motivation behind this debate is that some disagreements—in particular disagreements about taste—are not well-suited for the explanation that one of the disagreeing parties must be mistaken. Rather, what better accounts for such disagreements, it is thought, is that the disagreeing parties are actually having different, correct, beliefs about different propositions, or that the proposition under discussion does not have an objective truth-value, but only a truth-value that is relative to each of the disagreeing subjects.

To give a toy example, suppose that two peers have disagreeing beliefs about whether spinach is tasty—the one peer believes that spinach is tasty, the other peer believes that spinach is not tasty. In that case, the peers seem to have a disagreement. However, contra the disagreement assumption, neither of the disagreeing peers seems to be mistaken. After all, if the one peer does find spinach tasty, then her belief that spinach is tasty seems correct. And if the other peer does not find spinach tasty, then her disagreeing belief seems to be also correct.

So, rather than maintaining that one of these peers must have an incorrect belief, an alternative account of such a disagreement could be that the disagreeing beliefs of these peers are actually about different propositions. For instance, the disagreement could be reconstructed as the one peer believing, correctly, the proposition that spinach is tasty *for her*, and the other peer disbelieving, also correctly, the proposition that spinach is tasty *for him*.

Furthermore, another account could be that the disagreeing beliefs of the two peers *are* about the same proposition—namely, that spinach is tasty—but that this proposition does not have an objective truth-value. Instead, the disagreement could be reconstructed as concerning a proposition that only has a truth-value relative to a subject, so that the one peer can correctly believe that spinach is tasty, and the other peer can correctly disbelieve this.

There is much more to be said about these alternative accounts. And there are many ways in which a defender of the conciliatory view could adjust to them. But for now the point of this brief excursion is to show that the conciliatory view's disagreement assumption, as it stands, does not obviously hold for all peer disagreements.

To be sure, for some disagreements, such as our earlier restaurant case, it is clear enough that one of the disagreeing parties must have an incorrect belief. But there are other disagreements, such as the above disagreement about taste, that are more resilient to this assumption. What is more, the disagreement assumption has also been questioned in other philosophical debates about disagreement, most notably in the debate about *ontological disagreement* (see David Chalmers et al. [11]) and in the debate about *moral disagreement* (see Harman [44]).

So there is some wiggle room in the conciliatory view's disagreement assumption that whenever two peers disagree at least one of them must have an incorrect belief. This wiggle room, however, has remained underexposed in the debate about peer disagreement. In chapter 3 I set this right and further investigate the constraints that the conciliatory view needs to impose on peer disagreements in order for the disagreement assumption to hold for all of them.

One last remark. In section 2.3 I said that there are independent motivations for choosing a full belief framework in this dissertation. One of these motivations is that in the other philosophical debates about disagreement mentioned above—about taste disagreement, ontological disagreement, and moral disagreement—the attitudes that an agent can have regarding a proposition are typically thought of as full beliefs. And because I want to inform the conciliatory view with insights from these debates, it is useful to interpret the conciliatory view within a full belief framework. (The other motivation is explained presently.)

2.5.3 *Peerhood*

I now turn to the second proposal with respect to the disagreement assumption, namely that whenever two peers have formed disagreeing beliefs, at least one of these beliefs must be *irrational*. After all, even if it is the case that in a peer disagreement at least one of the peers' disagreeing beliefs must be incorrect, this does not necessarily

mean that one of them must be mistaken. For the disagreeing beliefs could still both be perfectly rational relative to these peers' respective epistemic properties—that is, for instance, their evidence, background beliefs, epistemic standards, and so on.

In section 2.2.1 we assumed for the time being that peers are agents who are epistemically similar in a relevant way, but noted that the question of when two agents are each other's peers is one of the central questions of this dissertation. And in section 2.4.1 we further specified this question as: what needs to be assumed about disagreeing peers in order for the conciliatory view to apply? In light of the foregoing, we can now state the issue in full detail: what assumptions does the conciliatory view need to make about peers—how epistemically similar do they have to be—in order for it to be the case that at least one of them must have formed an irrational belief when they disagree? In other words, what is the extent of epistemic similarity that is required for two peers in order for the disagreement assumption—in the above sense—to hold between them?

An influential suggestion from the literature in this respect is the uniqueness thesis. This thesis says that there can be only one rational belief state regarding a proposition, given a body of evidence. In our full belief approach, what this means is that, given a body of evidence and a certain proposition, only one out of our three belief states can be rational: either it is rational to believe the proposition, or it is rational to disbelieve it, or it is rational to suspend judgment. Accordingly, assuming that the epistemic similarity of two peers includes sameness of evidence, there can be only one belief state that is rational for these peers to adopt regarding a proposition. As a result, when they have formed disagreeing beliefs regarding this proposition, at least one of these belief-formations must have been irrational—and the disagreement assumption is secured.

However, there is considerable debate about this uniqueness thesis (for an overview, see Kopec and Titelbaum [60]). One of the main issues is that there are different ways in which evidence and evidential support can be further specified. Consequently, even though two peers have the same evidence, it could be that there are different rational belief states for them regarding a proposition, given a difference in how the evidence is interpreted, or how evidential support is construed.

To give a toy example—borrowed from Van Fraassen [107, pp. 19–20]—suppose that you and I have both noticed scratching in the walls of our house, the patter of little feet at midnight, and a steady decline in our cheese supply. In that case, in a way, we have the same evidence. Now suppose that, on the basis of this evidence, you form the belief that there is a mouse in our house. This seems, on the surface at least, a rational belief-formation. But suppose that I, in addition to our evi-

dence, have the background belief that there are no mice around this time of year. As a result, I form the belief that there is not a mouse in our house. This also seems to be a rational belief-formation. But now we have—contra the uniqueness thesis—different rational belief states regarding a proposition, given the same evidence.

Alternatively, suppose that for you a body of evidence supports a proposition when this proposition forms a good explanation of the evidence, whereas for me a body of evidence supports a proposition only when the evidence deductively follows from the proposition. In that case, relative to your construal of evidential support, our evidence seems to support the proposition that there is a mouse in our house. But on my construal, which is far more demanding, our evidence does not support this proposition. Consequently, there seem to be available different rational belief states for us regarding our proposition, despite the fact that we have the same evidence.

Again, there is a lot more to be said about the different ways in which evidence and evidential support can be further specified in relation to the uniqueness thesis. And there are also many ways in which a defender of the uniqueness thesis could respond. But for now the point of these examples is to show that the conception of peerhood requires further precisification if the disagreement assumption—in terms of the uniqueness thesis—is to hold between two peers. More specifically, it needs to be further precisified how epistemically similar two disagreeing peers have to be, and in what way, in order for it to be the case that at least one of their disagreeing beliefs must be irrational.

This project is undertaken in chapter 4. That is to say, in that chapter I investigate and make more precise the further constraints that the conciliatory view needs to impose on disagreeing peers in order for the uniqueness thesis to hold between them.

And in that chapter we also find the other motivation for our full belief approach. The uniqueness thesis has been extensively discussed in the context of degrees of belief (see, for example, Meacham [79]), but less so in the context of full beliefs. Part of the reason for this is that the uniqueness is presumed to be quite plausible in the context of full beliefs (see Kelly [53]). That is to say, in a degree of belief setting, there are (infinitely) many doxastic attitudes available toward a proposition, which could make it seem implausible to think that only one of them can be rational. In a full belief setting, on the other hand, there are traditionally only three doxastic attitudes available—namely, believing a proposition, disbelieving a proposition, or suspending judgment—which makes the uniqueness thesis more conceivable. In chapter 4 we put this presumption to the test. This is the other reason for choosing a full belief framework.

2.5.4 *Rationality*

In addition to the different ways in which a peer disagreement can be interpreted, and the different ways in which the notion of peerhood can be further precisified, there are also different ways in which rationality can be understood.

At least one consensus that we can appeal to in our epistemological context, fortunately, is that rationality has *something* to do with the classical Jamesian precept of attaining truth and avoiding error, and that evidence is *somehow* a means to this end. In light of this epistemic goal, as we have seen in section 2.3.1, the conciliatory view makes a particular, though widely accepted, assumption about rationality—namely, that rationality is such that it cannot be rational to retain a belief when the evidence for this belief does not outweigh the evidence against it. That is to say, the conciliatory view assumes that, in order for a belief to be rational, there should be more evidence to think that it is correct than evidence to think that it is incorrect (see, for example, Christensen [12], Elga [23], and Feldman [29]).

This rationality assumption is almost a platitude—virtually everyone in the debate about peer disagreement agrees to it, at least in *some* way. However, what often remains overlooked is that there are also other conceptions of rationality available. In this dissertation, I want to draw attention to one relevant alternative in this respect—namely, the *permissive* conception of rationality.

As James [48] himself already pointed out, the epistemic goal is open to at least two different interpretations. On the one hand, we can place the emphasis on *avoiding incorrect beliefs*. On this interpretation, we can say that it is not rational to believe some proposition, unless there is sufficient evidence to think that this proposition is *true*—as this will reduce the risk of error. And if there is not sufficient evidence in this respect, then, presumably, suspension of judgment is the only rational belief state to adopt, because, if anything, this avoids forming a belief that is incorrect.

On the other hand, we can also place the emphasis on *attaining correct beliefs*. And on this interpretation, we can say that it is rational to believe some proposition, unless there is sufficient evidence to think that this proposition is *false*—for this will increase the prospects of attaining correct beliefs. And, importantly, if there is not sufficient evidence in this respect, then suspension of judgment is *not* as rational a belief state to adopt, because, even though it succeeds in avoiding an incorrect belief, it also blocks the possibility of attaining a correct belief (see also Kelly [53] and Pettigrew [85]).

The latter interpretation constitutes a relatively lenient, permissive conception of rationality (see White [113]). That is to say, relative to

the former interpretation, it permits more beliefs as rational, because its evidential threshold for rational belief is comparatively low. The former interpretation, on the other hand, amounts to a relatively strict, *non-permissive* conception of rationality, because it has a comparatively high threshold for rational belief, and so fewer beliefs will be rationally permissible.

Now, the conciliatory view's rationality assumption sides with the non-permissive conception of rationality. After all, this assumption says that a belief is rational only if there is sufficient evidence to think that this belief is correct. This is one of the key premises for the conciliatory view's claim that a conciliatory revision is the most rational response to the disagreement from a peer.

Importantly, however, on a permissive conception of rationality it can be rational to *retain* one's belief in the face of peer disagreement—and a conciliatory revision, in the form of suspending judgment, is *not* the most rational response. After all, on a permissive conception a belief can be rational if there is insufficient evidence to think that this belief is incorrect. And even though the disagreement from a peer presents at least *some* evidence to think that one's belief is incorrect, it need not constitute *sufficient* evidence to think that this is so. On the conciliatory view's own peerhood assumption, in any case, the disagreement from a peer creates a situation of evidential symmetry in which there is *just as much* evidence to think that one's belief is incorrect as that it is correct. And given this assumption, the permissive conception of rationality can certainly permit retaining one's belief in the face of peer disagreement.

So even if we grant the defenders of the conciliatory view their disagreement assumption—so that in a case of peer disagreement at least one of the disagreeing beliefs is incorrect—as well as their peerhood assumption—so that there is evidential symmetry with respect to the question of which of these belief is incorrect—there is still some wiggle room with respect to the conciliatory view's answer to the response problem. And this wiggle room is created by the alternative, permissive conception of rationality.

Thus, if the conciliatory view is to be correct in claiming that the only rational response to the disagreement from a peer is to make a conciliatory revision, then some further argumentation is required as to why the non-permissive conception of rationality should be preferred over the permissive conception.

In chapter 5 I will investigate an influential line of reasoning to this effect. It is the argument that a permissive conception of rationality is not a viable option because it allows for beliefs that are *arbitrary* (see White [113, 114]). This, it is argued, makes a permissive conception of rationality nonviable, because avoiding arbitrariness is the hallmark

of rationality. However, in chapter 5 I explain how, given the different ways in which the epistemic goal can be interpreted, arbitrary beliefs *can* be regarded as rational. And this, I argue, makes the argument against the permissive conception of rationality question-begging (see also Titelbaum and Kopec [105]). My conclusion is that, until a more persuasive counterargument is given, the permissive conception remains a viable option. This would mean that, in spite of the conciliatory view's efforts to establish the contrary, it remains possible for peers to rationally disagree.

2.6 THE USE OF THIS PROJECT

Now that we have set the agenda, and laid out the groundwork, for this dissertation, I would like end this chapter by saying something about why I think this project is useful.

2.6.1 *Practical use*

A nice feature of the response problem of peer disagreement, and what drew me to it in the first place, is that it has practical implications. For, at first glance at least, it is concerned with an actual choice that we can make in real-life situations. When someone whom we consider to be our peer disagrees with one of our beliefs, do we retain this belief, or do we revise it?

Furthermore, in the background of this problem lies the epistemic goal that also has a certain practical relevance. In our everyday lives, it is useful to have correct beliefs. For one thing, beliefs that are incorrect prove to be quite inconvenient when they are used as a basis for decision-making or other reasoning. When I am deciding on what train to take to get to a meeting, it is not helpful when this planning is informed by incorrect beliefs about where this meeting takes place, at what time, or how long the train ride will take. Attaining correct beliefs and avoiding incorrect beliefs is, if nothing else, practically useful.

In this light, the response problem of peer disagreement becomes the practical question of what a rational response is to the disagreement from a peer, given that we want our beliefs to be correct. Which response better serves our epistemic purposes in this respect—that is, which response has the best prospects for attaining a correct belief and avoiding an incorrect belief: retaining the disputed belief, or making a conciliatory revision?

So, one of the reasons why I find this project worthwhile is that there really is something practical at stake in rationally responding to the disagreement from a peer. It concerns the beliefs that we are going to live with—the beliefs we use in our everyday reasoning and

decision-making. In this light, the conciliatory view, which says that these beliefs should be revised whenever a peer disagrees, deserves a thorough investigation.

2.6.2 *Theoretical use*

Our investigation targets the additional assumptions and constraints that the conciliatory view must impose on their notions of disagreement, peerhood, and rationality. For, as we have seen, the validity of the conciliatory view depends on the kind of disagreement at issue, the exact definition of peerhood, and how rationality is understood.

A recurrent theme in this investigation is that the additional assumptions and constraints for the conciliatory view are rather substantial. First, in order to make their disagreement assumption hold for peer disagreements, the conciliatory view must place considerable limits on the kinds of disagreements that peers can have, and on the kinds of agents that peers can be. And second, even in this limited number of cases where the disagreement assumption holds, the conciliatory view's peerhood assumption does not yet mean that a conciliatory revision is the only rational response to such peer disagreements. For this, the conciliatory view must take for granted a particular, non-permissive conception of rationality. This is a substantial assumption, since there is, or so I argue, a more permissive conception of rationality available on which retaining one's belief can also be a rational response to the disagreement from a peer.

The upshot is that the conciliatory view has a rather limited scope of applicability—it only applies to a certain kind of disagreement, between a certain kind of peers, under a certain conception of rationality. This limits the practical use of the conciliatory view. However, this doesn't mean that our investigation of when the conciliatory view applies is of no value—it also has a certain theoretical use. Because in the process of the investigation we will gain valuable insights into the various kinds of disagreements that we can have, the various sorts of agents that we can have disagreements with, and the different ways in which we can understand evidence and rationality in this respect.

We can compare it to Descartes' classical form of skepticism that we saw in the introduction. Even though in real life it is not feasible to doubt everything, Descartes' skepticism can be helpful in studying our notions of knowledge and certainty. In the same way, we can say that our investigation of the conciliatory view, even though it has a rather limited scope of applicability in real life, is a useful tool to have a closer look at our notions of disagreement, peerhood, and rationality.

2.7 CONCLUSION

We have introduced a new form of skepticism—namely, the conciliatory view, according to which rational belief is not possible in the face of disagreement from epistemically similar peers. We have explained and reviewed the master argument for this conciliatory view, and looked at some prominent objections.

However, what has remained underexposed in the literature, we then pointed out, is the wiggle room in two central assumptions behind the conciliatory view. First, regarding the disagreement assumption, it can be questioned whether a peer disagreement automatically entails that something is *wrong*—that is, whether at least one of the disagreeing peers must be mistaken. Second, regarding the rationality assumption, it can be questioned whether a peer disagreement always means that something must be *done*—that is, whether a conciliatory revision is the only rational response.

In the next three chapters I further investigate these two assumptions, to find out the reach of this new form of skepticism.

DISAGREEMENT AND SUBJECTIVITY

In this chapter I investigate and make more precise what needs to be assumed about the disagreement of two peers, in order for it to fall under the scope of the conciliatory view. The main results are twofold. First, the conciliatory view must assume that peer disagreements are not ‘subjective’ in such a way that the disagreeing beliefs can be rendered both correct. Second, this additional assumption imposes significant constraints on the scope of the conciliatory view.

3.1 INTRODUCTION

The conciliatory view says, in short, that it cannot be rational for peers to disagree, and that instead some conciliatory revision is required. In the previous chapter, I have argued that the validity of this conciliatory view depends on the kind of disagreement in question, the extent of epistemic similarity between the disagreeing peers, and how rationality is further understood. The aim of this chapter is to further investigate the first contingency—the kinds of disagreement that fall under the scope of the conciliatory view. In doing so, I focus primarily on the conciliatory view’s *response claim* that a conciliatory revision is the rational response in cases of peer disagreement (as opposed to the conciliatory view’s *arrival claim* that peers cannot rationally arrive at disagreeing beliefs). The reason for this is explained in the course of this introductory section.

As also noted by Konigsberg [59] and Carter [9], this contingency of what kinds of disagreements fall under the scope of the conciliatory view has not yet received the attention it deserves. To be sure, as we have seen in the previous chapter, one of the central assumptions behind the conciliatory view is the *disagreement assumption*, which says that peer disagreements are such that at least one of the disagreeing beliefs must be incorrect (see, for example, Christensen [12, p. 198], Feldman [29, p. 199], and Kelly [51, p. 172]). However, as we shall see in this chapter, it remains an open question what it is for a disagreement to satisfy this disagreement assumption and, more importantly, when this disagreement assumption obtains.

To see this, consider the wide range of disagreements that two peers might have. Peers are well known for disagreeing about the division of restaurant bills. But the range is presumably much wider than that. Peers can also, at least conceivably, have disagreements about taste

(when two chefs disagree about the tastiness of a certain dish), or about aesthetics (when two art critics disagree about the value of some artist's work). And, more conventionally, peers can disagree about some moral issue (affirmative action, animal rights), some political issue (health care, tax reform), or some judicial issue (whether the defendant is guilty, what the penalty should be). And in the sciences peer disagreements can range from a debate about the right interpretation of Shakespeare's sonnets, to what caused the mass extinction of dinosaurs, to the correct diagnosis of a patient's condition, to the multiverse as an explanation of the values of physical constants. And in philosophy, finally, peers can disagree about almost anything.

Do all these disagreements satisfy the disagreement assumption? That is, are all these disagreements such that at least one of the disagreeing peers must have a belief that is incorrect? One of the central points of this chapter is that we do not always, not for all peer disagreements, have to commit ourselves to this disagreement assumption. Some peer disagreements can be interpreted in such a way that the disagreeing beliefs of two peers are rendered both correct.

Of course, for some peer disagreements it is natural to suppose that the disagreement assumption holds. For example, when we disagree about the division of the restaurant bill—you believe that our equal share is €43, and I disbelieve this—we are inclined to think that one of our beliefs must be incorrect. In such matters of simple arithmetic, we generally assume that whatever holds for you also holds for me—it is either true or false that our equal share is €43.

For the purposes of this chapter, I characterize such disagreements as being *objective*. By a disagreement being objective I mean that the issue under discussion is naturally represented by a proposition that has an objective truth-value—that is, for our purposes, a truth-value that holds independently for both the disagreeing parties. For example, in our disagreement about the restaurant bill, we can be said to have formed disagreeing beliefs about the proposition that our equal share is €43, which has an objective truth-value. Accordingly, one of our beliefs must be incorrect, and so the disagreement assumption holds.

But for other disagreements it is less natural to think that the disagreement assumption holds. To give an extreme example, suppose that we disagree about whether spinach is tasty—you believe that spinach is tasty, I believe it isn't. In such a case, we are less inclined to think that one of our beliefs must be incorrect. In such matters of taste, that is, we do not generally assume that whatever holds for you also holds for me. Rather, we think that whether spinach is tasty depends on the observing subject, at least in a way in which the issue of whether our equal share is €43 doesn't.

This latter kind of disagreements I characterize as being *subjective*. By a disagreement being subjective I mean that what is to be believed regarding the issue under discussion may be thought to depend in some way on the observing subject. Accordingly, in such cases the issue under discussion is *not* naturally represented by a proposition that has an objective truth-value. (The question of how these disagreements can then be represented will be answered shortly.)

This possibility of a disagreement being subjective—and thereby resilient to the disagreement assumption—has remained underexposed in the debate about peer disagreement. This is regrettable, especially because it is rather prominent in other philosophical debates about disagreement. In this chapter, I highlight three of them: the debate about taste disagreement in philosophy of language, the debate about moral disagreement in meta-ethics, and the debate about ontological disagreement in meta-ontology. What binds these debates together is precisely the question of whether, regarding these domains of disagreement, we should commit ourselves to the disagreement assumption that at least one of the disagreeing parties has an incorrect belief. And, if the answer is negative, the further question is how these disagreements should then alternatively be represented.

In the debate about taste disagreement in philosophy of language, for example, the consensus is that a disagreement such as our disagreement about spinach should be represented as being subjective. That is, whether spinach is tasty is interpreted as depending on the observing subject, so that our disagreeing beliefs regarding this issue are to be considered both correct. But then the question is how we should think of the issue under discussion in these disagreements, if not by way of a single proposition with an objective truth-value.

One new and influential answer to this question is the account of *indexicalism*, also known as *new relativism* (see, for example, Lasersohn [67], MacFarlane [72]). The idea, in short, is that a proposition such as that spinach is tasty does not have an objective truth-value on its own, but only relative to the index of an observing, tasting, subject. Thus, the proposition that spinach is tasty can be true for the one subject, and false for the other. And this means that our disagreeing beliefs regarding this proposition can be both correct, so that the disagreement assumption does not obtain.

Another, more traditional account is that of *contextualism*, which sometimes also goes under the header of relativism, but is relevantly different from indexicalism (see, for example, Glanzberg [38], Stojanovic [102]). The idea behind contextualism is that in our disagreement about spinach we are not concerned with the same, single proposition, but with different propositions, relative to our different subjective contexts—say, our different standards for taste. Thus, in brief, when you believe

that spinach is tasty, then you believe the proposition that spinach is tasty *for you*, and when I believe that spinach is not tasty, I believe the proposition that spinach is not tasty *for me*. This would mean that both our disagreeing beliefs can be considered correct, and the disagreement assumption doesn't hold.

Such a contextualist account is also prominent in the debate about moral disagreement in meta-ethics, and the debate about ontological disagreement in meta-ontology. In these debates, the consensus is not that such disagreements are subjective—rather, this is precisely the question under discussion. Some maintain that such disagreements should be interpreted as being objective, so that only one of the two disagreeing parties can be correct (see, for the moral domain, Enoch [27], or, for the ontological domain, Sider [98]). But others believe that such disagreements should be construed as being subjective, so that this disagreement assumption does not hold.

Perhaps the most influential account in this respect is what I call contextualism, but what in these debates is also known as, respectively, *moral relativism* and *conceptual relativism*. On the account of a moral relativist, moral beliefs should be understood in relation to the context of a *moral framework*—say, a set of moral values and principles (see, for example, Harman [44], Wong [116]). For example, when I believe that abortion is morally permissible, and you believe that abortion is not morally permissible, this should be represented as me believing the proposition that abortion is morally permissible *relative to my moral framework*, and you believing the proposition that abortion is morally impermissible *relative to your moral framework*. On this construal, our disagreeing beliefs can both be understood as correct.

Similarly, on the account of conceptual relativism, beliefs regarding ontological issues should be understood in relation to a *conceptual framework*—say, a set of ontological assumptions and concepts (see, for example, Chalmers [10], Hirsch [47]). Thus, to give an example of an ontological disagreement, when I believe that tables exist and you believe that tables do not exist, our disagreeing beliefs should be understood as being about different propositions, relativized to different conceptual frameworks. This way, what I believe can be construed as correct relative to my conceptual framework, and what you believe can be construed as correct relative to your conceptual framework—the disagreement assumption doesn't hold.

Now, why is this important? How does this possibility of interpreting a disagreement as being subjective relate to the conciliatory view, and, more specifically, to our investigation of the kinds of disagreements that fall under its scope? There are three consecutive reasons why such an alternative interpretation is relevant.

First, peer disagreements, I argue, can also be suitable for such an alternative, subjective interpretation, sometimes even particularly so. When two peers form disagreeing beliefs—despite the fact that they are epistemically alike in a relevant way—and it is not clear which of these beliefs is incorrect, nor is there a straightforward way in which this can be determined, then it may become less plausible to suppose that the disagreement assumption holds—that is, that the issue under discussion has an objective truth-value so that one of the disagreeing peers has formed an incorrect belief. Instead, it may become more plausible to infer that what is to be correctly believed regarding this topic, somehow, depends on the observing subject. The accounts of indexicalism and contextualism are two ways in which such a subjective interpretation can be made more precise. This is worked out in more detail in the sections 3.2 to 3.4.

Second, when a peer disagreement is construed as being subjective this way, then, I argue, a response that is different from a conciliatory revision is called for. When the disagreeing beliefs of two peers are interpreted as being both correct—because it is thought that what is to be correctly believed regarding the issue under discussion depends on the observing subject—then a conciliatory revision is out of order. After all, why revise a belief that is correct? Indeed, in light of the epistemic goal of attaining correct beliefs, the more rational response is to accept both the disagreeing beliefs, since they are both correct, be it relativized to the relevant features of the respective observing subjects. This is further explained in section 3.5.2.

Third, this possibility of interpreting a peer disagreement as being subjective has interesting ramifications for the scope of the conciliatory view. If the defenders of the conciliatory view want to uphold, first, their disagreement assumption that in a peer disagreement one of the disagreeing peers has an incorrect belief, and second, their conclusion that a conciliatory revision is consequently the only rational response, then, I argue, they commit themselves to the further assumption that peer disagreements cannot be represented as being subjective. That is to say, they must assume that peer disagreements are about a single proposition that has an objective truth-value.

However, as I further explain in section 3.5.3, this presents a certain dilemma for the defenders of the conciliatory view. On the one hand, they can limit the scope of the conciliatory view to only those peer disagreements that are naturally represented as being objective—that is, disagreements such as our disagreement about the restaurant bill. But this has the drawback, I argue, that the conciliatory view becomes an almost trivial view. Virtually everyone agrees that something like a conciliatory revision is required in such cases. On the other hand, they can widen the scope of the conciliatory view so that it also includes peer

disagreements about, for example, philosophical issues. But this means that the conciliatory view must take on board substantial assumptions about the objectivity of these further areas of discourse.

Either way, I conclude in section 3.6, the scope of the conciliatory view is more constrained than it initially appears to be.

3.2 THE DISAGREEMENT ASSUMPTION

To start our investigation of the kinds of disagreement that fall under the scope of the conciliatory view, it is useful to first recapitulate its master argument.

3.2.1 *Revisiting the master argument*

Let me reiterate the argument using the thermometer example. Suppose that I want to know what the temperature in my room is. I check my thermometer, which indicates that it is 18°C. In that case, under normal conditions, it is rational for me to believe that the temperature in my room is 18°C.

But now suppose that I stumble upon a second thermometer in my room. I check this thermometer as well, and to my surprise this one indicates that it is 20°C. In that case, other things being equal, it is no longer rational for me to believe that the temperature in my room is 18°C. Why? Because, without further information, the second thermometer gives me just as much evidence to believe that it is 20°C as the first thermometer gave me to believe that it is 18°C. But they can't both be correct—at least one of them, it seems, must be inaccurate. And because I don't have any more reason to think of the one thermometer that it is correct rather than the other, the rational thing for me to do, it seems, is to adopt a neutral stance between the two thermometer readings.

The argument for the conciliatory view, as we saw in the previous chapter, is similar to this line of reasoning. Suppose that I believe that the highest mountain in Europe is the Mont Blanc. But then I bump into you, and learn that you believe that the Mont Blanc is not the highest mountain in Europe. In that case, other things being equal—that is, assuming that you are my peer—it is no longer rational for me to believe that the Mont Blanc is the highest mountain in Europe. After all, one of our beliefs must be incorrect, it seems, either the Mont Blanc is the highest mountain in Europe or it isn't. But since you are my peer, I don't have any more reason to think that your belief is incorrect rather than mine. Therefore, the argument goes, the rational response to your disagreement is to make a conciliatory revision, and suspend judgment.

However, in the next subsection I explain how this argument for the conciliatory view, as it stands, is in need of some further constraints on the kinds of disagreements to which it applies.

3.2.2 *A deflating continuation*

The above line of reasoning relies on the disagreement assumption that the beliefs of disagreeing peers cannot be both correct—at least one of them must be mistaken. That is to say, when the disagreeing beliefs of two peers are, somehow, both correct, then a conciliatory revision of these beliefs seems out of order.

To see this, consider the following continuation of our Mont Blanc disagreement. Suppose that I mean by “Europe” the area covered by the countries of the European Union, and that you mean the geographical continent. Then, although we appear to be in disagreement, we are actually concerned with different propositions, and these propositions need not be incompatible. In fact, in this case both propositions are true. After all, the Mont Blanc is indeed the highest mountain in the European Union, but the highest mountain in continental Europe is Mount Elbrus, in the Caucasus.

Such a disagreement, if we may call it that, does not sit well with the conciliatory view. Recall from the previous chapter that in the background of the conciliatory view lies the widely accepted presupposition that the epistemic goal behind rational belief-formation is to attain correct beliefs and to avoid incorrect beliefs, and that, in this respect, an agent’s belief is rational when it is formed in accordance with the evidence of this agent. In this light, the rational response for me in our continuation of the Mont Blanc disagreement, it seems, is not to make a conciliatory revision. After all, both our disagreeing beliefs are correct, so a conciliatory revision would mean that we each give up on a belief that is correct.

Indeed, in the interest of attaining correct beliefs, the most rational response, ideally speaking, is not to make a conciliatory revision, but rather to disambiguate our disagreeing beliefs, retain my correct belief *and* learn from you that the Mont Blanc is not the highest mountain in continental Europe. That is to say, a disagreement in which the disagreeing beliefs are, somehow, both correct, should be seen as an opportunity to attain a new correct belief rather than an incentive to revise a belief because it is potentially incorrect. Granted, a conciliatory revision is still a prudent option, in that it doesn’t run the risk of retaining a belief that is incorrect, but in this case it also means missing out on the chance to attain a correct belief.

(Analogously, for a conciliatory revision to be the optimal response in the thermometer case, the different readings of the two devices should

not be somehow both correct. The devices should not, for instance, be correctly measuring different variables, say temperature and humidity, or the same variable but at different locations, or use different scales to correctly express the value of the variable. For, in those cases, a better response, ideally speaking, is to disambiguate between the two devices and take over the the different measurements.)

Two possible objections are in order. A first objection might be that the above continuation of the Mont Blanc case doesn't appertain to the conciliatory view because it is not a proper peer disagreement. There are at least two ways in which this could be so. First, the continuation may be thought not to count as a proper *disagreement*. After all, I believe a proposition to be true that is different from the proposition you believe to be false. So, in a way, you and I are not really disagreeing, but, rather, talking past each other. That is, our situation is a form of misunderstanding more than it is a disagreement. Indeed, once we disambiguate our disagreeing beliefs, we may very well agree that the Mont Blanc is the highest mountain in the European Union but not in the European continent. For a peer disagreement to count as a proper disagreement, then, there should really be a conflict in that the one peer believes the same proposition to be true that the other peer believes to be false (see also Feldman [29, p. 199]).

Second, the continuation may be thought not to count as a disagreement between proper *peers*. After all, peers are construed as agents who are epistemically similar in a relevant way. Indeed, the notion of peerhood is designed, we could say, to capture a critical and relevant amount of similarity between two agents. In this light, when you and I mean relevantly different things by our disagreeing beliefs, one might think that there is a critical dissimilarity between us such that we no longer qualify as each other's peers.

A second objection might be that, even if the disagreeing beliefs of two peers are in fact both correct, a conciliatory revision is still the most rational response. After all, as we saw in the previous chapter, on the conciliatory view, the rationality of a belief-formation depends on whether an agent, from an internal perspective, has sufficient reason to think that the belief is correct, and not on whether, from an external perspective, the belief is in fact correct (see section 2.4.2). In this light, it doesn't matter that our disagreeing beliefs regarding the Mont Blanc are in fact both correct. So long as I have insufficient reason to think that this is so, and so long as I have insufficient reason to think that my own belief is correct rather than yours—which is by definition true in cases of peer disagreement—the rational response remains for me to suspend judgment.

However, in what follows I describe how, even when the foregoing objections are taken into account, a peer disagreement can be particularly

well-suited for a subjective representation. That is to say, even when a peer disagreement is a proper disagreement between proper peers, and it is acknowledged that there is insufficient reason to think of one of the beliefs that it is correct rather than the other, such a peer disagreement can be well-suited for a subjective representation such that the disagreeing beliefs of the two peers come out as being both correct, much like the above continuation of our Mont Blanc disagreement.

3.2.3 *Subjective peer disagreement*

We said that *objective disagreements* are disagreements for which the issue under discussion is naturally represented by a single proposition that has an objective truth-value. Examples are the restaurant case, and, at first glance at least, our disagreement about the Mont Blanc. In such cases, it is natural to suppose that the disagreement assumption holds—when two agents have disagreeing beliefs regarding the same proposition, and this proposition has an objective truth-value, then one of these beliefs must be incorrect.

On the other hand, *subjective disagreements* are disagreements for which the issue under discussion is *not* naturally represented by a single proposition that has an objective truth-value. The reason for this is that what is to be believed regarding the issue under discussion may be thought to depend in some way on the observing subject. An example was our earlier disagreement about spinach—whether we should believe that spinach is tasty seems to depend in some way on how it tastes to us. And the continuation of the Mont Blanc case should also be construed as a subjective disagreement—whether we should believe that the Mont Blanc is the highest mountain in Europe depends in part on what we mean by “Europe”.

One of the central points of this chapter is that peer disagreements can also be rendered subjective this way. To explain this, let me start out with a variation on the thermometer example.

Suppose that the two thermometers in the example are not those cheap, ordinary models, but really expensive, extremely precise, state-of-the-art devices that have withstood repeated checking for error and relevant dissimilarities. Nevertheless, they still give the same different indications, 18°C and 20°C, of the temperature in my room. At this point, we can ask what this situation indicates, what it is evidence of. One option is to maintain that this disagreement still means that one of the devices, despite them being extremely reliable, is somehow malfunctioning and incorrect. But another explanation is looming. For one could also infer that something else, something more subtle, is going on—namely, that the disagreement is evidence, not of an error somewhere, but of some leeway for different accurate measurements of

the temperature in my room. That is to say, an alternative explanation of the situation may very well be that there is some unknown, hitherto undisclosed, parameter is involved so that, somehow, it is 18°C relative to the one measurement and 20°C relative to the other.

(For the reader who thinks that this variation on the thermometer example is too fanciful, it should be noted that this story is somewhat analogous to what happened in the early days of quantum mechanics, when certain experiments indicated that elementary particles exhibit the properties of particles, but other experiments suggested that they behave like waves. After repeated experimenting continued to give the same results, scientists were pressured to the peculiar conclusion that elementary particles can be described both as particles and as waves, depending on the experimental setup.)

The moral of this variation on the thermometer example is that a disagreement can sometimes pull in opposing directions with respect to the disagreement assumption. On the one hand, since the thermometers are so similar and reliable, we are inclined to think that what holds for the one should also hold for the other—if they give disagreeing indications of the temperature, one of them must be incorrect. That is to say, there is a pull towards an objective representation of the disagreement such that the disagreement assumption holds.

On the other hand, because the thermometers are so similar and reliable, we may equally begin to wonder how one of them could be malfunctioning. After all, the more that two thermometers are each other's equals in being well engineered and trustworthy, the less plausible it becomes to conclude that one of them is defective when they give disagreeing indications of the temperature—how could one of them be defective when they are so well engineered and trustworthy? So, the greater the similarity and reliability of the disagreeing thermometers, the stronger the pull also becomes towards a subjective representation of their disagreement—that is, the more plausible it becomes to conclude that it is, somehow, 18°C relative to the one thermometer, or 'subject', and 20°C relative to the other.

It can be seen as an instance of the Duhem-Quine thesis—that is, the idea that a hypothesis is never tested in isolation, but always in conjunction with auxiliary hypotheses. When we receive the conflicting evidence of disagreeing thermometer reports, there are different ways in which this conflicting evidence can be accommodated in order to resolve the tension. One option is to infer that one of the thermometers must be malfunctioning. But another option is to revise the auxiliary hypothesis that the temperature in the room is absolute. And in the absence of further evidence that favors the one explanation over the other, it seems that our resolution can go either way.

The same dialectic can be applied to peer disagreements. We have construed peers, recall, as agents that are epistemically similar in a relevant way. And in the literature this epistemic similarity often comes with the connotation of high quality (see, for example, Elgin [25, p. 59], Fumerton [35, p. 99], Kornblith [61, p. 30]). That is to say, peers are usually understood to be agents that are epistemically similar in that they are, say, equally reliable and good reasoners—and not in that they are both hopelessly bad thinkers. In this sense, peer disagreement can have a similar pull towards a subjective representation of the disagreement, such that the disagreement assumption does not hold.

To see this, consider a renowned case of peer disagreement between the two distinguished philosophers Peter van Inwagen and David Lewis (see also Van Inwagen [109]). Van Inwagen believes that free will is not compatible with determinism—that is, with the idea that every event is causally necessitated by an earlier event—but Lewis believed that free will *is* compatible with determinism. Observe that Van Inwagen and Lewis are, by all appearances, each other's peers. They seem to be epistemically alike in relevant ways—they are both well-respected and reliable thinkers, they both have thought long and hard about the issue of compatibilism, they have studied the same arguments pro and contra compatibilism. Furthermore, they are, by all appearances, having a proper disagreement. Van Inwagen seems to be denying the same proposition that Lewis affirms—they do not seem to be talking past each other. But now, regarding this disagreement between these high quality peers, we can ask again what this disagreement indicates, what it is evidence of.

One option is to follow the conciliatory view in their disagreement assumption and conclude that either Van Inwagen or Lewis must have an incorrect belief. That is to say, we can think of their disagreement as being objective such that their disagreeing beliefs are about the same proposition and this proposition has an objective truth-value—it is either true or false that free will is compatible with determinism. This way, either the belief of Van Inwagen or the disagreeing belief of Lewis is incorrect. Accordingly, given that Van Inwagen and Lewis are each other's peers, they have insufficient reason to think that their own belief is correct rather than the disagreeing belief of the other. As a result, says the conciliatory view, the rational thing for them to do is to make a conciliatory revision.

But there is an alternative line of reasoning we could follow. For it may also be considered rather unlikely that either Van Inwagen or Lewis must be mistaken, precisely because they are such high quality peers. They are both distinguished philosophers who have written and thought extensively about this issue of compatibilism. In this light, it becomes less plausible to suppose that one of them must be incorrect.

And instead, we could reason that something more elusive is going on—namely, not that one of them must be mistaken, but, rather, that Van Inwagen and Lewis have, somehow, reached different ways to think correctly about the issue of compatibilism. That is to say, rather than taking over the disagreement assumption, we could also resort to an alternative reading of the disagreement—namely, that there is some hidden parameter involved such that, somehow, free will is not compatible with determinism relative to what Van Inwagen believes, and free will is compatible with determinism relative to what Lewis believes. As we also saw in the Mont Blanc case, one such a hidden parameter could be, for example, that Van Inwagen and Lewis, somehow, mean different things by “free will”, or “compatible” or “determinism”.

(Similarly, suppose that in the Mont Blanc example we are not agents with ordinary geographical knowledge, but that we are both experts in this field. For example, suppose that we are both mountaineers who have climbed every mountain in Europe worth mentioning, or that we are cartographers working on a map of the highest peaks in Europe. In that case, when I believe that the Mont Blanc is the highest mountain in Europe and I learn that you disbelieve this, it is also less plausible to suppose that one of us must be incorrect. Since we are both such experts, we may be expected not to make mistakes so easily. Instead, it may be more plausible to think that something else is going on—for instance, that we mean different things by “Europe”).

In any case, the point is that peer disagreements can also pull in opposing directions with respect to the disagreement assumption, in particular when the disagreement is between high quality peers. For, on the one hand, since the disagreeing peers are so similar and reliable, we can think that what holds for the one should also hold for the other—if they form disagreeing beliefs, then one of them must be incorrect. So there is a pull towards an objective representation of peer disagreements such that the disagreement assumption holds.

However, precisely because the peers are so similar and reliable, we may equally begin to wonder how one of them could have formed an incorrect belief. The more similar and reliable two disagreeing peers are, the less plausible it may become to suppose that one of their beliefs must be incorrect. So, even when the peers are by all appearances each other’s proper peers, and they are by all appearances having a proper peer disagreement, there can be a pull towards a subjective representation of their disagreement such that the conciliatory view’s disagreement assumption does not hold.

3.2.4 *Rational response?*

It is important to note that a conciliatory revision is not necessarily the most rational response to a peer disagreement that is understood to be subjective in the foregoing sense. When the disagreeing beliefs of two peers are thought to be, somehow, both correct, due to some kind of subjective element to the disagreement, one could argue that suspension of judgment is unwarranted. For example, when our disagreeing beliefs about the highest mountain in Europe are both correct, relative to the subjective element of what we respectively mean by “Europe”, why should we be required to revise these beliefs?

To be sure, making a conciliatory revision and suspending judgment is still a prudent option in that it at least prevents two peers from inadvertently retaining a belief that is incorrect. But, especially when the disagreement is between high quality peers, one could say that a conciliatory revision is *too* prudent, for it means giving up on two beliefs that have a certain value in that they were formed by two similarly good, reliable thinkers. That is to say, in such a case a conciliatory revision runs the risk of throwing the baby out with the bathwater, so to speak, because we may expect the beliefs of such high quality peers to be correct, or there may at least be something that can be learned from these beliefs—even if they are perhaps only correct relative to some subjective element in the disagreement.

For example, regarding the disagreement between Van Inwagen and Lewis, these distinguished philosophers have thought long and hard about the issue of compatibilism. In this respect, the beliefs they formed on the basis of these investigations can be said to have a certain value—there may be something that can be learned from them, they may provide an opportunity to attain new correct beliefs about the issue of compatibilism. For instance, a new finding might be that there are two different ways to think correctly about the issue of compatibilism—just like there were in the Mont Blanc case two different ways to think correctly about the highest mountain in Europe. The conciliatory view, with their conciliatory revision as the required rational response to peer disagreements, obstructs this opportunity.

I come back to the alternative rational response to subjective peer disagreements in section 3.5.2. First, in the next two sections, I describe in more detail two ways in which a peer disagreement can be represented as subjective such that the disagreement assumption does not hold—that is, such that the disagreeing beliefs of the two peers can turn out to be both correct.

3.3 INDEXICALISM

In recent years, there has been a lively discussion in philosophy of language about taste disagreement (some seminal papers are Kölbel [58], Lasersohn [67], MacFarlane [72]). The central question is how to account, semantically speaking, for disagreements about taste. We have already touched upon a prime example of such a disagreement, namely our disagreement about spinach from section 3.1.

The debate about such taste disagreements is driven by two opposing intuitions. On the one hand, there is the intuition that both the disagreeing beliefs to a taste disagreement are correct. If you indeed do find spinach tasty, then your belief that spinach is tasty seems correct. And the same goes for my belief that spinach is not tasty. We don't think, at least not generally, that there is an objective truth-value to the issue of whether spinach is tasty. Rather, we think that whether spinach is tasty depends on the subject. Hence the intuition that neither of us is mistaken in our disagreement about spinach.

The second intuition is that in a taste disagreement the disagreeing parties are not obviously talking about different things. When you believe that spinach is tasty, and I disbelieve that spinach is tasty, we are not talking past each other—at least not as obviously as in our Mont Blanc disagreement where we meant different things by “Europe”. The intuition is that, in a sense, I am believing the same proposition to be true that you believe to be false.

And the puzzle is how to reconcile these opposing intuitions. Because if we are having disagreeing beliefs regarding the same proposition, how can these beliefs be both correct? And if our disagreeing beliefs are both correct, how can they be about the same proposition?

One proposed solution to this puzzle is what I call *indexicalism* (it's sometimes called *new relativism*—for an overview, see Baghramian and Carter [1], Cappelen and Huenes [8]). On this account, in short, the proposition that is at issue in a taste disagreement can have truth-values that are relative to a subject. Thus, the proposition that spinach can be true relative to you, but false relative to me. Accordingly, our disagreeing beliefs regarding this proposition can be both correct. In the next subsection this is explained in more detail.

3.3.1 *Relative truth-values*

This relativist account of taste disagreement traces back to the foundational work of Kaplan [50] and Lewis [71] on semantics. One of the key features in these works is an enrichment of the parameters against which the truth-value of a proposition can be evaluated. Following Lewis [71, p. 86], such parameters can be combined in an *index*—that

is, “an n -tuple of features of context of various sorts”. Thus, an index is a combination of contextual features—such as a possible world, a time, a location, but possibly other features as well—that can be used to determine the truth-value of a proposition. (In the same spirit, Kaplan [50, p. 502] talks about “circumstances of evaluation”, which are “both actual and counterfactual situations with respect to which it is appropriate to ask for the extensions [truth-value] of a given well-formed expression [proposition]”).

To see how this works, consider the proposition that Paris is the capital of France. What parameters do we need to be able to evaluate the truth-value of this proposition? Typically, the truth-value of this proposition can be evaluated by looking at the actual world—that is, by considering whether it is in our actual world the case that Paris is the capital of France. Thus, the index against which the truth-value of the proposition that Paris is the capital of France can be evaluated, ordinarily speaking, only needs to consist of one parameter, namely the actual world.

But now consider the proposition that it is raining (the example is borrowed from Boghossian [5]). If we want to evaluate the truth-value of this proposition, the single parameter of the actual world doesn’t suffice. After all, at some parts of the actual world it may be true that it is raining, whereas at other parts this may be false. To this end, the index can be enriched with the additional parameters of a specific location and a specific time. Relative to such an enriched index, the proposition that it is raining can receive a determinate truth-value. For example, when we include in the index not only the actual world as a parameter, but also a specific location in Amsterdam, and the specific time of 9am, January 18, 2017, then the proposition that it is raining is either true or false, relative to this index.

(To be sure, it may be objected that the expression that it is raining does not constitute a proper proposition, precisely because, as it stands, it cannot be evaluated for truth—and one of the defining features of a proposition, as we also assumed in section 2.5.2, is that it is something that can be true or false. But the innovation of Kaplan [50], and particularly Lewis [71], is precisely that an expression such as that it is raining *can* constitute a proposition, provided that suitable adjustments are made to the index relative to which the proposition is evaluated—that is to say, if sufficient additional parameters are added to the index, then the proposition that it is raining *does* have a determinate truth-value. I come back to this in section 3.4.1.)

And what is interesting for our purposes is that, on this account, the proposition that it is raining can have different truth-values relative to different indices. When this proposition is evaluated relative to the

index of Amsterdam, 9am, January 18, 2017, it is true, but it may be false relative to the index of New York, 9am, January 18, 2017.

3.3.2 *Disagreement*

The semantics of Kaplan [50] and Lewis [71] is used by indexicalists to solve the puzzle of taste disagreement—that is, to reconcile the opposing intuitions that the disagreeing beliefs in a disagreement about taste are both correct *and* that these disagreeing beliefs are also concerned with the same proposition. Let me explain how this works.

(My explanation is based on the indexicalist accounts of MacFarlane [72] and Lasersohn [67]. This will do for present purposes, but for a more detailed account, see MacFarlane [73].)

As we have seen, Kaplan [50] and Lewis [71] created room for additional parameters in the index so that a proposition such as that it is raining can have a determinate truth-value. Here is Kaplan [50, p. 502]:

A circumstance [index] will usually include a possible state or history of the world, a time, and perhaps other features as well. The amount of information we require from a circumstance [index] is linked to the degree of specificity of contents [propositions] ...

In other words, the proposition that it is raining was not “specific” enough to have a determinate truth-value. To remedy this, additional parameters, or “features”—such as a specific time, a specific location—were added to the index. This way, the non-specific proposition that it is raining *does* have a determinate truth-value, relative to this enriched, more specific index.

The indexicalist, says MacFarlane [72, pp. 21–22], expands on this line of thought by envisioning a proposition such as that spinach is tasty to be non-specific in a similar way. This proposition, as it stands, may similarly be regarded as a proposition that is not specific enough to have a determinate truth-value. And to remedy this, the indexicalist can in the same way add a further parameter to the index—namely, a so-called “standard for taste”. This way, the non-specific proposition that spinach is tasty can get a determinate truth-value, relative to an index that includes such a standard for taste.

This move would open up room for the truth value of a proposition to vary with these “subjective” factors in much the same way that it varies with the world of evaluation. The very same proposition—say, that apples are delicious—could be true with respect to one standard of taste, false with respect to another. (MacFarlane [72, p. 22], see also Lasersohn [67, pp. 662–663]).

This further enrichment of the index, then, enables a neat solution to the puzzle of taste disagreement, for now the disagreeing beliefs in a taste disagreement can be about the same proposition *and* be both correct. Reconsider our disagreement about spinach—you believe that spinach is tasty, and I believe that spinach is not tasty. On the one hand, the indexicalist can maintain that we are not talking past each other, and that we are really disagreeing in that you believe the same proposition that I disbelieve—namely, the proposition that spinach is tasty. And on the other hand, the indexicalist can maintain that our disagreeing beliefs regarding this proposition are both correct—the proposition that spinach is tasty is true relative to the index that includes your standard of taste, and this proposition is false relative to the index that includes my standard of taste.

So here we have a first way in which a peer disagreement could be represented as subjective such that the disagreement assumption does not hold—that is, such that the disagreeing beliefs of the two peers are both correct. To recapitulate, suppose that, regarding the disagreement between Van Inwagen and Lewis about the issue of compatibilism, we think it is implausible to suppose that one of them must be mistaken—perhaps because we find it unlikely that one of these distinguished philosophers would have formed an incorrect belief after thinking so long and hard about this issue. In that case, we could follow the lead of the indexicalist, and conclude that the proposition under discussion—say, that free will is incompatible with determinism—is not specific enough that have a determinate, objective truth-value. And instead, we could reason that this proposition only has a truth-value relative to an enriched index that includes, say, a “philosophical framework”. This way, the proposition that free will is incompatible with determinism can be true relative to the index that includes the philosophical framework of Van Inwagen, and false relative to the index that includes the philosophical framework of Lewis.

Thus, by means of this indexicalist account, the peer disagreement between Van Inwagen and Lewis can be rendered subjective such that the disagreement assumption does not hold—their disagreeing beliefs are both correct, relative to their subjective philosophical frameworks.

To be sure, it might be objected that, on this indexicalist construal, Van Inwagen and Lewis can no longer be each other’s peers, since they must operate from different philosophical frameworks. However, recall from section 3.2.3 that such a construal is invoked as a possible explanation of the conflicting evidence of two agents who are similar by all appearances but nevertheless have formed disagreeing beliefs regarding some issue. We said that such a situation is an instance of the Duhem-Quine thesis that a hypothesis is never tested in isolation, but only in conjunction with auxiliary hypotheses. That is to say, the disagree-

ment between Van Inwagen and Lewis can be explained by inferring that one of them must have made a mistake (while operating from the same philosophical framework). But another possible explanation is that—despite the fact that Van Inwagen and Lewis are similar by all appearances, and so should indeed classify as each other’s peers—they do not operate from the same philosophical framework after all (and that both are correct, relative to these different frameworks). In the absence of further evidence that favors the one explanation over the other, it seems that the resolution can go either way.

3.4 CONTEXTUALISM

The suggestion from the indexicalists to relativize the truth-values of certain propositions to a subject is quite a radical proposal. It may work well enough for the proposition that it is raining, and perhaps also for propositions involving taste predicates. But few are prepared to relativize the truth-value of a proposition such as that free will is compatible with determinism. Whether free will is compatible with determinism does not depend on the subject, it seems, in the same way as, for example, the issue of whether spinach is tasty does.

Traditionally, the more conventional way to construe a disagreement as subjective is by way of *contextualism* (see also Baghramian and Carter [1], Cappelen and Huvenes [8]). Contextualism, like indexicalism, is a way to re-interpret a disagreement such that the beliefs of the disagreeing parties are both correct. But where indexicalism did so by looking at what the truth-value should be, properly speaking, of the proposition under discussion, contextualism does so by looking at what is being believed, properly speaking, by the disagreeing parties. That is to say, contextualism renders a disagreement subjective by construing the disagreeing parties as believing, correctly, different propositions, relative to their different *contexts*, whereas the account of indexicalism accomplished this by letting a proposition have different truth-values, relative to different indices.

This way, the account of contextualism can present another solution to the puzzle of taste disagreement. Regarding our disagreement about spinach, a contextualist analysis would be that we are concerned with different propositions. I believe the proposition that spinach is tasty *relative to the context of my standard for taste*, and you believe the proposition that spinach is not tasty *relative to the context of your standard for taste*. This way, our disagreeing beliefs can be construed as being both correct. (But note that on this contextualist construal we are no longer having a proper disagreement about the same proposition. I come back to this in section 3.4.2).

In what follows I explain the account of contextualism in more detail. (My explanation is based on Glanzberg [38] and Stojanovic [102]. For a more detailed overview, see Silk [99].)

3.4.1 *Relative propositions*

Here is a standard example to introduce the account of contextualism (the example is borrowed from Cappelen and Huvénès [8]). Consider the proposition that John is tall. This proposition, taken at face value, is not specific enough to be either true or false. As we have seen, the indexicalist account was to regard such a non-specific proposition as a proposition nonetheless, and to enrich the index relative to which this proposition is evaluated so as to make this proposition have a determinate truth-value. The contextualist takes a different route. The contextualist account is to regard the non-specific proposition that John is tall as constituting a proposition, properly speaking, only in relation to a specific *context*. That is to say, rather than enriching the index, the contextualist suggestion is to enrich the *non-specific proposition itself* with a context so as to turn it into a proposition that is specific enough for it to have a determinate truth-value (relative to the standard, non-enriched index of our actual world).

Thus, to continue the example, whether John is tall is typically thought to be true or false only in relation to a certain comparison class. Relative to the comparison class of basketball players, for instance, it may be false that John is tall, but relative to the human average, this may be true. Contextualism builds on this thought by letting the non-specific proposition that John is tall constitute a specific proposition in relation to such a context—say, the proposition that John is tall *relative to the context of basketball players*.

Observe that this contextualist account can be used in the same way to accommodate the non-specific proposition that it is raining, from the previous section. Suppose that we want to evaluate this proposition in the context of Amsterdam, 9am, January 18, 2017. On the indexicalist account, these contextual features were added to the index, so that the non-specific proposition that it is raining gets a determinate truth-value, relative to this enriched index. On the contextualist account, on the other hand, these contextual features are added to this non-specific proposition *itself* so that it constitutes the proposition that it is raining *relative to the context of Amsterdam, 9am, January 18, 2017*. And this enriched proposition is then on its own specific enough to have a determinate truth-value, relative to the more standard, non-enriched index of our actual world.

And what is interesting for present purposes is that, on the contextualist account, a non-specific proposition, such as that it is raining,

may constitute different propositions relative to different contexts. In the context of Amsterdam, 9am, January 18, 2017, it constitutes the proposition that it is raining relative to the context of Amsterdam, 9am, January 18, 2017. But in the context of New York, 9am, January 18, 2017, it constitutes the proposition that it is raining relative to the context of New York, 9am, January 18, 2017.

3.4.2 *Disagreement*

This contextualist account can be used to give an alternative analysis of the puzzle of taste disagreement—the puzzle of how to reconcile the intuition that the disagreeing beliefs in a disagreement about taste are both correct with the intuition that these disagreeing beliefs are concerned with the same proposition. For a contextualist analysis would be to deny that these opposing intuitions are to be reconciled (see also Stojanovic [102, pp. 705–706]). In a taste disagreement, the disagreeing beliefs can be both correct precisely because they are concerned with different propositions. This contextualist proposal is neatly summed up by MacFarlane [72, p. 18]:

The contextualist takes the subjectivity of a discourse to consist in the fact that it is covertly about the speaker (or perhaps a larger group picked out by the speaker’s context and intentions). Thus, in saying that apples are “delicious”, the speaker says, in effect, that apples taste good to her (or to those in her group). . . . [But] if in saying “apples are delicious” I am saying that they taste good to me, while in saying “apples are not delicious” you are denying that they taste good to you, then we are no more disagreeing with each other than we would be if I were to say “My name is John” and you were to say “My name is not John”.

Thus, to go back to our disagreement about spinach, the contextualist construal of such a disagreement would be to re-interpret our disagreeing beliefs as being concerned with different propositions, perhaps in spite of appearances to the contrary. That is to say, when I believe that spinach is tasty, I am in effect, says the contextualist, believing the proposition that spinach is tasty *relative to the context of my standard for taste*. And when you believe that spinach is not tasty, you are in effect believing that spinach is not tasty *relative to the context of your standard for taste*. So, on this contextualist analysis, we are actually not having a proper disagreement in the sense that I believe the same proposition that you disbelieve. Rather, the contextualist proposal is to capture the subjectivity of our disagreement by having us believe,

correctly, different propositions, relative to the different, subjective contexts of our standards for taste.

This form of contextualism is also prominent in other philosophical debates about disagreement. Let me highlight two specific examples. First, the position of contextualism in the meta-ethical debate about *moral disagreement*—where it is also known as *moral relativism*. And second, the position of contextualism in the meta-ontological debate about *ontological disagreement*—where it is also known as *conceptual relativism*. One of the central questions in these debates is precisely whether these kinds of disagreement should be understood as being objective—so that at least one of the disagreeing parties has an incorrect belief—given that disagreement in these areas is so widespread and often seemingly irresolvable.

Let me discuss contextualism in the moral domain first. To give a standard example of a moral disagreement, suppose that you and I are having a disagreement about the issue of abortion. I believe that abortion is morally permissible, and you believe that abortion is morally impermissible. When we take into account that disagreement about this issue is ubiquitous, and that there is not a straightforward way in which it can be determined which of these disagreeing beliefs is correct, or incorrect, it may seem implausible to suppose that this is an objective disagreement—that is, that it is a disagreement about a single proposition that has an objective truth-value. Instead, it may be thought that there is some subjective element that plays a role in these matters, and that the appertaining disagreements should be represented accordingly.

One seminal proposal in this respect is the contextualist account of Harman [43, 44] (but see also Prinz [88], Velleman [110], Wong [116]). Here is Harman [43, p. 3]:

My moral relativism is a soberly logical thesis—a thesis about logical form, if you like. Just as the judgment that something is large makes sense only in relation to one or another comparison class, so too, I will argue, the judgment that it is wrong of someone to do something makes sense only in relation to an agreement or understanding.

In later work, Harman [44] makes the comparison with claims about motion. Whether something is moving depends on a spatiotemporal framework. Sitting behind my desk, I am moving relative to the framework of the moon, but I am at rest relative to the framework of the earth. Furthermore, there is no single privileged framework, no Archimedean point, from which it can be determined whether I am moving or at rest *absolutely*. In determining whether something is moving, one is always confined to a spatiotemporal framework, and there is no ‘best’

framework that tells you whether something is moving absolutely, independent of anything else. However, in our everyday discourse about motion, this relativity usually remains implicit. We don't usually say that something is moving relative to framework so-and-so—we simply say that something is moving, period.

It is this same contextualist structure that Harman [44] identifies for the moral domain. Whether something is right or wrong is not an absolute matter, but always relative to a certain agreement, or a moral framework—say, a set of moral assumptions and principles. There is no privileged, or 'best', framework from which it can be determined what is objectively right or wrong. In everyday moral discourse, however, this relativity typically remains implicit.

Thus, on this contextualist account, when I believe that abortion is morally permissible, I should be taken to believe that abortion is morally permissible *relative to the context of my moral framework*—even if this typically remains implicit. Similarly, when you believe that abortion is not morally permissible, you should be taken to believe that abortion is not morally permissible *relative to the context of your moral framework*. This way—supposing that my moral framework includes the typical pro-choice considerations and your moral framework the usual pro-life considerations—our disagreeing beliefs can be construed as being both correct, as they are concerned with relevantly different propositions, relative to our different moral contexts.

The account of contextualism in the domain of ontology—conceptual relativism—has a similar structure. Here is a standard example (borrowed from Putnam [90]). Suppose that a Polish logician and an ordinary person are looking at a table that has three books on it. When asked how many objects there are on this table, the ordinary person, using ordinary language, will ordinarily say that there are three objects on the table—namely, the three books. The Polish logician, however, using a certain set-theoretic language, might say that there are not three, but seven objects on the table—namely the seven sets that these three books can combinatorially compose. What this suggests is that how many objects there are on the table is not an objective matter, but that it depends on a subjective *conceptual framework*, a language that is used to describe and interpret the world.

It is sometimes thought that disagreements about ontological issues—such as whether elementary particles can compose a further composite object, such as a table or a car, or whether there are such things as universals—resemble this dispute between the Polish logician and the ordinary person. Regarding such disagreements, one may be reluctant to conclude that there really is a proposition with an objective truth-value at issue, that one of the parties is right and the other is wrong.

Rather, it seems that there are just different ways in which one can think about such issues. Here is Hirsch [46, p. 67]:

Look at your hand while you are clenching it, and ask yourself whether some object called a fist comes into existence... The first thought that must come to mind when we ask this question is this: There can't be anything deep or theoretical here. The facts are, so to speak, right in front of our eyes. Our task can only be to remind ourselves of relevant ways in which we describe these facts in our language.

In the same vein, it can be argued that fundamental ontological issues—whether composite objects exist, whether universals exist—should be understood only in relation to the context of a conceptual framework, a language. Relative to one way of describing the world, it may be correctly believed that, say, composite objects exist, while this belief may be incorrect relative to another way of describing the world—much like the belief that there are seven objects on the table may be considered correct relative to a set-theoretic language, but incorrect relative to our ordinary language. This way, the two sides to such an ontological disagreement can be interpreted as both believing correctly, relative to the different conceptual frameworks they employ (see also Chalmers [10], Eklund [22], Hirsch [47]).

It is only a small step from such ontological disagreements to the disagreement between Van Inwagen and Lewis. To recapitulate again, suppose that, regarding the peer disagreement between Van Inwagen and Lewis about whether free will is compatible with determinism, we think it is implausible to suppose that one of them must be mistaken. In that case, we could follow the contextualist in supposing that the issue of whether free will is compatible with determinism is not an objective, absolute matter, but that this should be understood relative to the context of, say, a *philosophical framework*—for example, a set of philosophical assumptions, principles, and concepts. Accordingly, Van Inwagen's belief that free will is not compatible with determinism can be re-interpreted as being actually concerned with the proposition that free will is incompatible with determinism *relative to his philosophical framework*. And Lewis' belief can be re-interpreted as being concerned with the proposition that free will is compatible with determinism *relative to his philosophical framework*. This way, the disagreeing beliefs of Van Inwagen and Lewis can be understood to be both correct, given the different propositions they are concerned with, relative to their different philosophical contexts.

So, via this contextualist account, the peer disagreement between van Inwagen and Lewis can be rendered subjective such that the disagreement assumption does not hold—their disagreeing beliefs are both

correct, as they are concerned with different propositions, relative to their different ‘subjective’ philosophical frameworks.

3.5 PEER DISAGREEMENT

We have seen two accounts of how a disagreement can be interpreted as being subjective: indexicalism and contextualism. Indexicalism captures the subjectivity of a disagreement by letting the proposition under discussion have truth-values that are relative to an index that includes certain subjective features. And contextualism captures the subjectivity of a disagreement by letting the disagreeing beliefs be concerned with different propositions, relative to a context that includes these subjective features.

There may be other ways in which a disagreement can be construed as subjective. For instance, a further option is to deny that the issue under discussion has a truth-value at all. That is to say, when it is thought that there is some subjective element underlying a disagreement such that the issue under discussion has no determinate truth-value, then—rather than making the proposition or the index more specific so as to obtain a determinate truth-value—one could also simply concede that there is no truth-value to be had. In meta-ethics this option is known as *non-cognitivism*. In short, the idea is that an issue such as whether abortion is morally permissible is not apt for truth or falsehood (for an overview, see Schroeder [96]. This option is also conceivable for the meta-ontological debate about ontological disagreements (see, for example, Thomasson [104]). And regarding the peer disagreement between Van Inwagen and Lewis, this option would amount to denying that the issue of whether free will is compatible with determinism has a determinate truth-value. This way, although the disagreeing beliefs of Van Inwagen and Lewis cannot be interpreted as being both correct, the disagreement assumption yet fails in that these disagreeing beliefs cannot be interpreted as being *incorrect* either, since the issue under discussion is not subject to truth or falsehood. I set this option aside for present purposes. The primary aim of this chapter is to show that we do not always have to commit ourselves to the disagreement assumption in cases of peer disagreement, not to give an exhaustive list of all the possible ways in which this can be done.

In addition, there is more that can be said about the indexicalist and contextualist accounts described above (for more details about indexicalism, see, for example, MacFarlane [73]; for more details about contextualism, see, for example, Silk [99]). These further details fall outside of the scope of this chapter. The main point of introducing the indexicalist and contextualist accounts is to enable an application

of these accounts to our issue of peer disagreement in relation to the conciliatory view—to which we turn next.

3.5.1 *Subjective representation*

What I have tried to show in this chapter is that there are different ways in which one can think about a disagreement between peers. For this, I have used the disagreement between Van Inwagen and Lewis about compatibilism as an example. As we have seen, one interpretation of such a disagreement is to maintain that Van Inwagen and Lewis have formed disagreeing beliefs regarding the same proposition—say, that free will is compatible with determinism—and that this proposition has an objective truth-value. On such an objective representation, the disagreement assumption holds—either the belief of Van Inwagen or the disagreeing belief of Lewis must be incorrect.

My point has been, however, that we do not always have to commit ourselves to such an objective representation in which the disagreement assumption holds. If need be, we may also represent a peer disagreement as being subjective—and think that what is to be believed regarding the issue under discussion, somehow, depends on the observing subject—such that the disagreement assumption does not hold.

And I have argued that peer disagreements can be particularly well-suited for such a subjective representation. The disagreement between Van Inwagen and Lewis is considered to be a paradigm case of peer disagreement (see, for example, Elgin [25], Van Inwagen [109]). But when we take into account that Van Inwagen and Lewis are both well-informed, sincere, and intelligent philosophers who have thought long and hard about the issue of compatibilism. And when take into account that this is a long-standing, persistent disagreement, with both sides defending tenable positions, without there being a straightforward way in which the disagreement can be resolved, or the truth of the matter can be determined. Then it may start to become implausible, perhaps even presumptuous, to think that the disagreement assumption holds—that the disagreement between Van Inwagen and Lewis is objective, about a single proposition that has an objective truth-value, so that one of their disagreeing beliefs is incorrect (see also Hales [42]).

Instead, I have argued, an alternative representation is looming. For another way to understand such a disagreement is to think that something more elusive is going on—that the issue under discussion is not so simple or clear-cut that it has a determine truth-value on its own, but rather, that this depends on some hidden parameter, a subjective feature. That is to say, regarding the disagreement between Van Inwagen and Lewis, we could infer that what is to be believed about

the issue of compatibilism depends on, say, a subjective philosophical framework—a set of philosophical assumptions and principles.

We have seen two more detailed accounts of how a disagreement can be rendered subjective this way. The indexicalist account is to say that the proposition under discussion—say, that free will is compatible with determinism—is not specific enough to have an objective truth-value. And their solution is to enrich the index relative to which this proposition should have a truth-value with further subjective features of context—in this case, possibly a philosophical framework. This way, the proposition that free will is compatible with determinism can be true relative to an index that includes one philosophical framework, and false relative to an index that includes another philosophical framework. As a result, the disagreeing beliefs of Van Inwagen and Lewis regarding this proposition can be construed as being both correct, relative to their respective philosophical frameworks, and the disagreement assumption does not hold.

The contextualist approach also starts from the observation that the proposition under discussion is not specific enough to have an objective, determinate truth-value. But instead of enriching the index, the contextualist solution is to enrich this proposition itself with further subjective features of context—such as a philosophical framework. This way, Van Inwagen and Lewis can be interpreted as being concerned with different propositions, relative to different philosophical frameworks. And as a result, their disagreeing beliefs can be construed as being both correct, and the disagreement assumption doesn't hold.

Now, why is this important? How is this possibility of representing a peer disagreement as subjective connected to our investigation of the conciliatory view? In two interrelated ways. First, peer disagreements that are interpreted as subjective cannot fall under the scope of the conciliatory view, or so I argue, as they call for a response that is different from a conciliatory revision. Second, and as a result, the conciliatory view must take on board the assumption that peer disagreements are to be represented as being objective. This, however, presents a certain dilemma for the defenders of the conciliatory view. For either they can restrict the scope of the conciliatory view to peer disagreements that are uncontroversially construed as being objective. But this makes the conciliatory view an almost trivial position. Or they can cast the scope more widely, so that it also includes the less trivial peer disagreements. But then the defenders of the conciliatory view commit themselves to an objective interpretation of such peer disagreements, for which there is, as I have argued, a subjective alternative available. I further explain these considerations in the next two, final, subsections.

3.5.2 *Alternative response*

Peer disagreements that are represented as subjective do not fall under the scope of the conciliatory view, because they call for a response that is relevantly different from a conciliatory revision.

To see this, call to mind that in the background of the conciliatory view lies the widely accepted presupposition that the epistemic goal behind rational belief-formation is to attain correct beliefs and to avoid incorrect beliefs, and that, in this respect, an agent's belief is rational when it is formed in accordance with the evidence of this agent.

In this light, when a peer disagreement is represented as objective, and the disagreement assumption holds, it may seem plausible enough that some form of revision must take place. After all, on an objective representation, at least one of the disagreeing beliefs must be incorrect. So, in the interest of attaining correct beliefs and avoiding incorrect beliefs, the disagreement on the whole cannot be rationally sustained, something needs to be done—that is, at least the belief that is incorrect should be revised. However, in a peer disagreement it is by definition uncertain which of the disagreeing beliefs is incorrect—there is no more reason to think of the one belief that it is correct than there is for the other. As a result, the conciliatory view concludes, the rational response for both disagreeing peers is to make a conciliatory revision.

However, this story doesn't hold true when the peer disagreement is represented as subjective. When, in the peer disagreement between Van Inwagen and Lewis, for example, it is inferred on the basis of the details surrounding this disagreement that what is to be believed regarding the issue under discussion somehow depends on the observing subject—so that the issue does not have an objective truth-value—then a conciliatory revision seems out of order. For example, when it is thought that what Van Inwagen believes is correct relative to his philosophical framework, and what Lewis believes is correct relative to his, then a conciliatory revision would mean for them to give up a belief that is considered correct. Given the presumed epistemic goal, this does not seem like a rational response.

A more rational response, on this construal, is for Van Inwagen and Lewis to accept both their beliefs, albeit relativized to their different philosophical frameworks. That is to say, in light of the epistemic goal, the more rational response is to acknowledge the subjectivity of the disagreement—to disambiguate the two disagreeing beliefs relative to their philosophical frameworks—and to learn that what Van Inwagen believes is correct relative to one philosophical framework and that what Lewis is correct relative to another philosophical framework. In other words, a disagreement that is subjective should not occasion a conciliatory revision because one's belief is potentially incorrect, rather,

it should be seen as an opportunity to learn something new, to attain a new correct belief.

(Maybe this alternative response can, with some stretching, be understood as a conciliatory revision. If this is the case, then with this much I do not disagree with the conciliatory view. But I don't think that such a conciliatory revision is what the defenders of the conciliatory view have in mind when they write, for example, that in a case of peer disagreement "the right thing for both of us to do is to suspend judgment" (Feldman [29, p. 212]), or that "I should change my degree of confidence significantly" (Christensen [12, p. 189]). In chapter 5 we come to speak in more detail about how to understand the conciliatory revision as a rational response in cases of peer disagreement.)

I would like to compare it to the well-known duck-rabbit illusion—an ambiguous picture which, from one angle, depicts a duck, and, from another angle, depicts a rabbit. If two agents were to disagree about what the picture depicts—the one agent believing it is a duck, the other a rabbit—then it seems misguided to require of these agents to make a conciliatory revision. After all, it is not either true or false that the picture depicts, say, a duck—it is not the case that one of the two agents is mistaken. Rather, what the picture depicts depends on the angle you are looking from—the two agents are both correct, relative to their different angles. So, instead of making a conciliatory revision and giving up their beliefs, we should want the agents to learn that both their beliefs are correct—that the picture depicts both a duck and a rabbit—be it relative to different angles. Much in the same way, I have argued, can the disagreeing beliefs of two peers be construed as both correct, relative to some subjective feature, or 'angle', such as a philosophical framework. In such cases, the rational response is not to make a conciliatory revision, but to learn that both beliefs are correct, relative to such a subjective feature.

3.5.3 *The dilemma*

I have argued that peer disagreements can be represented as being subjective in such a way that the disagreeing beliefs of two peers are rendered both correct. Furthermore, I have argued that such subjective peer disagreements cannot fall under the scope of the conciliatory view, because they call for a response that is different from a conciliatory revision. If correct, these considerations have interesting ramifications for the scope of the conciliatory view.

To see this, observe, first of all, that the conciliatory view can only range over peer disagreements that are not interpreted as subjective. The conciliatory view must take on board the assumption that the peer disagreements that fall under their scope are not to be represented

as being subjective, because otherwise this scope would include peer disagreements that do not require a conciliatory revision. But now we can ask, secondly, how wide is this scope? That is to say, how wide is the range of possible peer disagreements that are not to be interpreted as being subjective?

This depends. Some peer disagreements are naturally thought of as being objective—as being not susceptible to a subjective interpretation. Typical examples are the toy cases of peer disagreement that have been adduced in favor of the conciliatory view. We have already seen the restaurant case, from Christensen [12], where you and I disagree about the division of the restaurant bill. In that case, it is intuitive to think that the issue under discussion is objective, and that something like a conciliatory revision is required.

Another example is the *quad case*, from Feldman [29], in which two peers are looking out over the quad, and the one peer believes that the dean is walking on the quad, and the other peer disbelieves this. And a third example is the *horse race case*, from Elga [23], in which two peers are watching a horse race event, and the one peer believes that horse A has won the race, whereas the other peer believes that horse B has won the race.

Regarding such cases, it is hard to find someone who thinks that these disagreements are to be interpreted as being subjective—that what is to be correctly believed about the issue under discussion somehow depends on the observing subject. Rather, we are inclined to think that these disagreements are objective, that the disagreement assumption holds so that the beliefs of the disagreeing peers can't be both correct. Indeed, it is natural to conclude that, unless there is some reason to think that it is the belief of the other party that is incorrect—which is by definition not the case in peer disagreements—a conciliatory revision is required in such obviously objective cases, like the restaurant case, or the quad case, or the horse race case. Or better still, in the interest of attaining correct beliefs, the most rational response seems to be to go figure out which of the two disagreeing beliefs was correct.

Not only is the conciliatory view in such toy examples quite plausible, it is almost descriptively true. When the issue under discussion is so evidently objective and easily verifiable, we don't typically tend to persist in a disagreement. At least, I doubt that many people will stick to their opinion in disagreements like the restaurant case, or the quad case, or the horse race case. Rather, in such cases, I think we will be surprised by the other person's disagreement, and make a revision in the sense that we check the evidence again to see who is correct. It is like Socrates told Eutypbro: we do not disagree—not in general, and at least not very deeply or persistently—about such objective matters that can be measured, or calculated, or otherwise easily verified.

Now, one way to make good on the requirement that the conciliatory view's peer disagreements are not to be interpreted as being subjective, is to restrict the scope of the conciliatory view so that it only includes those peer disagreements that are evidently objective. This would mean, however, that the conciliatory view only ranges over peer disagreements such as the restaurant case, the quad case, or the horse race case—that is, cases about which most agree that the issue under discussion is objective, and the correct belief can be determined in a relatively straightforward fashion. Such peer disagreements are not susceptible to a subjective interpretation, and the conciliatory view appears quite plausible in such cases.

However, such a limited scope also makes the conciliatory view fairly uninteresting. I think that almost everyone agrees that something like a conciliatory revision is required in these evidently objective cases—or, at least, that it cannot be rational for the disagreeing peers to stick to their beliefs without there being a good reason to think that this belief is correct, rather than the other peer's disagreeing belief. And, on top of that, I think that these cases are more likely to be toy examples than that they concern actual peer disagreements. In general, we don't have deep or persistent disagreements about issues that are so evidently objective and easily verifiable.

Alternatively, the scope of the conciliatory view can be cast more widely, so that it also includes less trivial cases of peer disagreement—that is, cases that are less obviously objective, or in which the truth cannot be so straightforwardly determined. This would make the conciliatory view more substantial, because it would also range over cases concerning issues about which we actually do have deep and persistent disagreements—such as cases of philosophical disagreement, or moral disagreement, or perhaps political disagreement. However, this would also mean that the conciliatory view comes with the assumption that such disagreements are to be represented as being objective, such that the disagreement assumption holds, and a conciliatory revision can be considered a rational response. And, as we have seen in this chapter, such an assumption is open to debate. That is to say, these deep and persistent disagreements—about, for example, philosophical issues, or moral issues—are typically the disagreements that can also be represented as being subjective, such that the disagreement assumption does not hold, and a response that is relevantly different from a conciliatory revision is called for. If the defenders of the conciliatory view want to dispute this, then the burden of proof lies with them to show that their objective representation is the only way.

In conclusion, the possibility of representing a peer disagreement as being subjective, as presented in this chapter, poses the following dilemma for the defenders of the conciliatory view. Either they can

limit the scope of the conciliatory view to only those cases of peer disagreement that are evidently objective. The downside of this is that it makes the conciliatory view fairly trivial. Or the defenders of the conciliatory view can widen the scope of the conciliatory view so that it also ranges over actual, persistent peer disagreements. But this has as a downside that it commits the conciliatory view to a contentious assumption.

3.6 CONCLUSION

This dissertation is concerned with a further investigation of two central assumptions behind the conciliatory view. The first is the disagreement assumption that a peer disagreement means that something is *wrong*—that one of the disagreeing peers must have an incorrect belief. The second is the rationality assumption that a peer disagreement means that something must be *done*—that a conciliatory revision is the only rational response.

In this chapter we have investigated what needs to be assumed about the disagreement of two peers in this respect. We have found that, for a conciliatory revision to be a rational response, the disagreement should be such that the disagreement assumption holds—the beliefs of the disagreeing peers should not be somehow both correct. We have construed such disagreements as being objective.

However, we also found that this requirement imposes interesting constraints on the scope of the conciliatory view. Either this scope must be limited to fairly trivial cases of peer disagreement. Or the scope can be widened to cover also less trivial cases of peer disagreement, but then the conciliatory view comes with a commitment to an objective interpretation of such disagreements.

For the next two chapters, we set aside this possibility of interpreting a disagreement as being subjective. That is to say, for the remainder of this dissertation I shall assume that peer disagreements are objective, such that one of the disagreeing beliefs must be incorrect. What I am going to investigate in chapter 4 is whether a peer disagreement, thus constrained, means that only of the disagreeing beliefs can be rational, and what needs to be assumed about disagreeing peers in this respect. And in chapter 5 I will investigate whether a conciliatory revision is indeed the most rational response in such objective peer disagreements, and what sort of conception of rationality this requires.

Note, however, that the scope of these objective disagreements may still vary, depending on how far the defenders of the conciliatory view are willing to go in representing the various kinds of peer disagreements as being objective. And in the next two chapters we will see that the wider that the defenders of the conciliatory view choose to make this

scope, the more they run into the difficulties that we lay out in the next two chapters.

In this chapter, I investigate and make more precise what needs to be assumed about the epistemic similarity of disagreeing peers, in order for the conciliatory view to apply. I do so by subjecting the idea that the shared evidence of two peers uniquely fixes the belief states that are rational for them—called the uniqueness thesis—to the pressure of underdetermination—the phenomenon that there is room between a body of evidence and what is rational to believe on the basis of that evidence. I conclude that this forces onto the conciliatory view one of two further assumptions. Either it must be maintained that suspension of judgment is the only rational belief state available in cases of underdetermination, which would turn the conciliatory view into a particularly skeptical position. Or further constraints must be imposed on the epistemic similarity of disagreeing peers, which would make peer disagreement an increasingly rare phenomenon.

4.1 INTRODUCTION

The overarching aim of this dissertation is to precisify the conciliatory view as a solution to the problem of peer disagreement. In the previous chapter we have added more detail to the kind of peer *disagreements* that fall under the scope of the conciliatory view. The aim of this chapter is to examine another key factor, namely the kinds of disagreeing *peers* that fall under the scope of the conciliatory view. More precisely, I investigate what assumptions need to be made about disagreeing peers in order for one of the main claims of the conciliatory view to hold—namely the *arrival claim* that it is impossible for peers to rationally arrive at disagreeing beliefs, given their overall epistemic similarity (see chapter 2 section 2.5.1).

The precise definition of peerhood is a crucial but also somewhat disorganized issue in the debate about peer disagreement. There are many rough characterizations in the literature. The common thread is that peers are agents who have the same evidence with respect to the topic under discussion. But what varies is what further epistemic properties peers have in common. Following Gutting [41, p. 83], Kelly [51, p. 175] says that peers are also “equals with respect to general epistemic virtues such as intelligence, thoughtfulness, and freedom from bias”, Lackey [65, p. 274] talks about peers as each other’s “cognitive

equals”, and Elga [23, p. 486] construes peerhood as being “equally likely to be correct”.

The debate about peer disagreement would be helped forward with a clear picture of how exactly peerhood is, and can be, understood. For this would make it more transparent when rational peer disagreement is and is not possible. The present chapter contributes to this desideratum in one particular way, namely by analyzing the conception of peerhood that is required for the conciliatory view’s arrival claim, or disagreement assumption, to hold—that is, for it to be impossible for two peers to rationally arrive at disagreeing beliefs.

Recall from chapter 2 that one of the central assumptions behind the conciliatory view is the disagreement assumption—namely, in short, that a peer disagreement means that something is wrong—and that we distinguished two ways in which this assumption can be understood. A first interpretation is that in a peer disagreement at least one of the disagreeing peers has an *incorrect* belief—believes something that is false. We investigated this version of the disagreement assumption in chapter 3, where we examined what needs to be assumed about the *disagreement* of two peers in order for this disagreement assumption to hold. A second interpretation is that in a peer disagreement at least one of the disagreeing peers has formed an *irrational* belief—has formed the belief in a way that violates certain epistemic standards. In this chapter, I investigate this second version of the disagreement assumption. And I do so by examining what needs to be assumed about the epistemic similarity of disagreeing *peers* in order for this assumption to hold. This setup is explained in more detail in section 4.2.

I will approach this issue through an investigation of the *uniqueness thesis*. The uniqueness thesis is an influential, and heavily debated, proposal that is sometimes made in relation to the conciliatory view. In a nutshell, the thesis is that there can be only one rational belief state regarding a proposition, given a body of evidence (see, for example, White [113, 114], Christensen [12], Feldman [29], Matheson [75]). And this uniqueness thesis, then, can be extended to apply to peer disagreements insofar as peers are construed as agents with the same evidence. The application would be that, given that two peers are epistemically similar in that they have the same evidence, there can be only one rational belief state available for them regarding a proposition. And this would mean, in turn, that the disagreement assumption, in the above sense, holds between these disagreeing peers—it is impossible for these peers to rationally arrive at disagreeing beliefs. The relation between the uniqueness thesis and the conciliatory view on peer disagreement is explained in more detail in section 4.3.

It is easy to see, however, that this line of reasoning, as it stands, is insufficiently precise. After all, there can be other epistemic differences

between two peers—for example, a difference in background beliefs—that would make different belief states rationally available to them. The goal of this chapter is to remedy this imprecision, and to investigate what needs to be assumed about disagreeing peers, in addition to them having the same evidence, in order for the uniqueness thesis to hold between them. That is to say, I will investigate how much and what sort of *epistemic properties*—that is, the properties of an agent, such as her evidence and her background beliefs, that are subservient to the formation of rational beliefs—two peers need to have in common in order for it to be impossible for them to rationally arrive at disagreeing belief states regarding a proposition.

(I should point out that whether the uniqueness thesis holds between two peers is of course also contingent on how rationality is understood. In this chapter, however, I want to bracket this question, and go along with the conception of rationality that lies behind the uniqueness thesis. On this conception, rational belief is completely determined by evidence (see section 4.3). But note that there are still different ways in which this conception of rationality can be further precisified, which in turn can affect the validity of the uniqueness thesis. This, however, will be further investigated in chapter 5.)

Given this setup, there are two main topics of investigation. The first topic is what it is for two peers to have the same evidence and, prior to that, what it is for an agent to have evidence in the first place. These issues are pursued in section 4.4. One of the main points here will be that, for the uniqueness thesis to go through, peers must have at least the same *total evidence*, which is a substantial constraint on the epistemic similarity of two peers.

The second topic of investigation is when, under what conditions and assumptions, this shared total evidence of two peers indeed makes available only one rational belief state regarding a proposition. I investigate this topic by subjecting the uniqueness thesis to the pressure of *underdetermination*—that is, the phenomenon that often, and perhaps even always, a total body of evidence is compatible with more than one theory, or belief state regarding a proposition (the *loci classici* are Duhem [21] and Quine [91]). There are even forms of underdetermination in which there is in principle no evidence that could ever decide between two competing theories. I will further describe the phenomenon of underdetermination, and some of its varieties, in section 4.5.

This phenomenon of underdetermination puts pressure on the uniqueness thesis precisely because, in cases where the evidence is compatible with different belief states regarding a proposition, it is not clear why only one of these belief states should be rational. That is to say, the phenomenon of underdetermination shows us that that there is, at least sometimes, a gap between total evidence and rational belief. And what

this means for our uniqueness thesis is that the shared total evidence of two peers, in itself, is not always sufficient to necessitate only one rational belief state regarding a proposition.

I distinguish two ways in which the defenders of the conciliatory view could try to make the uniqueness thesis hold between two peers. The first option is to make suspension of judgment the uniquely rational belief state in all cases where the evidence underdetermines the correct belief. This would mean, however, that we should suspend judgment about many of our beliefs, leading to extensive skepticism, as many of our beliefs are subject to the phenomenon of underdetermination. I doubt that even defenders of the conciliatory view are prepared to go this far. This is further explained in section 4.5.3.

The second option is to further constrain the conception of peerhood. That is to say, the defenders of the uniqueness thesis can further specify epistemic properties that peers need to have in common—in addition to their shared total evidence—to close the gap between the shared total evidence of two peers and there being only one rational belief state available for them regarding a proposition. Borrowing from a long tradition in philosophy of science of thinking about rational belief in cases of underdetermination, I will further investigate one such a possibility in section 4.6.

To give a quick preview, an influential approach in philosophy of science to the problem of underdetermination is to take the theories (or belief states) that are left open by the evidence and order them in accordance with some extra-evidential factor, or epistemic property. For instance, the underdetermined theories could be ordered relative to the theoretical virtue of simplicity. And the rational choice would then be the theory that scores highest on such a factor, or perhaps on a combination of factors, thus relieving the pressure to suspend judgment in cases of underdetermination.

Accordingly, this suggestion can be used as a further constraint on the conception of peerhood so that peers not only need to have the same total evidence, but as a further epistemic property also the same extra-evidential ordering of theories when their total evidence does not decide between them, and the same criteria for a rational choice among these theories. Granted, such an approach would make the uniqueness thesis go a long way. However, it comes at the price of imposing heavy demands on the conception of peerhood. This is further explained in section 4.6.

The conclusion of this chapter is that the phenomenon of underdetermination pressures the defenders of the conciliatory view—insofar as they use the uniqueness thesis to substantiate their view—into the following dilemma. Either they can say that, if the total evidence of two peers leaves open different belief states regarding some proposition, that

suspension of judgment is the only rational option. This, however, has the drawback of extensive skepticism: rational belief would become a rare phenomenon, as underdetermination is widespread.

Alternatively, if the defenders of the conciliatory view are not willing to go this far, they can burden the conception of peerhood with further epistemic properties—such as a particular weighting of the available belief states relative to some theoretical virtue—in order to secure a uniquely rational belief for them in cases of underdetermination. This option, however, has the drawback of making disagreeing peers a rare phenomenon, up to the point of even becoming non-existent, since there will be effectively no real agents who have all these epistemic properties in common. This would render the conciliatory view a position that is only theoretically applicable.

Either way, I conclude in section 4.7, in order to maintain the arrival claim by means of the uniqueness thesis, the conciliatory view must be more constrained than it initially appears.

4.2 THE ARRIVAL CLAIM

Recall that in chapter 2 we distinguished two problems of peer disagreement. The first was the *response* problem of peer disagreement: can it be rational for peers to stick to their disagreeing beliefs after they learn of their disagreement, or is some form of revision required? The second was the *arrival* problem: can two peers rationally arrive at disagreeing beliefs—that is, can there be more than one rational belief state available for two peers regarding a proposition, given their epistemic similarity?

Furthermore, we identified the conciliatory view as answering both questions in the negative. With respect to the response problem, the conciliatory view draws the conclusion that it cannot be rational to stick to a belief in the face of peer disagreement, and that instead a conciliatory revision is required. And regarding the arrival problem, the conciliatory view puts forward the disagreement assumption that a peer disagreement means that at least one of the disagreeing peers is mistaken—that is, in the words of Christensen [12, p. 190], it is not possible for two peers to “share all the relevant evidence, react to that evidence faultlessly, and yet reach different conclusions”. And we saw that there are at least two ways in which this disagreement assumption can be understood, namely that in a peer disagreement one of the peers must have formed a belief that is not *correct*, or that one of them must have formed a belief in a way that is not *rational*. In this chapter I will be primarily concerned with this second version of the disagreement assumption in relation to the arrival problem of peer disagreement. In chapter 5, I will turn to the response problem and the conciliatory

view's solution that a conciliatory revision is the most rational course of action. In the present section, I explain why these matters should be treated separately. To do so, it is useful to first recapitulate some of the steps we have made so far.

We have argued in chapter 2 that the tenability of these claims of the conciliatory view depends on what sort of disagreement we are talking about, on the extent of epistemic similarity between two peers, and on how rationality is understood.

In chapter 3 we investigated the first contingency. Our conclusion was that the conciliatory view cannot range over peer disagreements that are interpreted as 'subjective' in such a way that the disagreeing beliefs of the two peers are construed as being both correct. As a consequence, we argued, the scope of the conciliatory view should be limited to those peer disagreements that the defenders of the conciliatory view are prepared to regard as being 'objective' in such a way that at least one of the disagreeing peers has an incorrect belief.

Throughout chapter 3, we were able to address the arrival problem and the response problem in tandem. This was made possible by an assumption about rationality—namely, that the goal behind rational belief-formation is to attain correct beliefs, and avoid incorrect beliefs, and that the best way to achieve this goal is to form one's beliefs in accordance with the evidence. Given this assumption, I argued that the conciliatory view fails both with respect to the arrival problem and with respect to the response problem if a peer disagreement is understood as being subjective—that is, if the disagreeing beliefs of the two peers are considered both correct, relative to some subjective feature. Because, in such a case, it can be rational for peers to arrive at these disagreeing beliefs—contrary to the conciliatory view's disagreement assumption—and a conciliatory revision of these beliefs is not the most rational course of action—contrary to the conciliatory view's conclusion regarding the response problem.

One of the toy examples I gave was a subjective disagreement about the highest mountain in Europe: I believe that the Mont Blanc is the highest mountain in Europe, and you believe it isn't, but you mean by "Europe" the geographical continent, and I mean the European Union. In that case, our disagreeing beliefs are both correct, relative to the different meanings we employ. In light of this subjective feature, it need not be irrational for us to arrive at these disagreeing beliefs. Furthermore, in light of the epistemic goal of attaining correct beliefs, a conciliatory revision of these beliefs is not a rational response, since the beliefs are both correct.

However, for this chapter and the next, we will take on board the constraint we imposed on the conciliatory view. That is to say, we will confine our discussion to peer disagreements that are objective such

that only one of the disagreeing beliefs of the two peers is correct, and the other is incorrect. And we will investigate whether, given this constraint, it is indeed impossible for two peers to rationally arrive at such disagreeing beliefs, and whether a conciliatory revision is indeed the only rational response to such a disagreement. And it is at this point that it becomes important to treat these matters separately.

The reason for this is that it could be rational for peers to arrive at disagreeing beliefs, even if only one of these beliefs is correct, without it being rational for these peers to stick to these beliefs after they become aware of their disagreement. To see this, reconsider the Mont Blanc case, and now assume that our disagreement is objective. So you and I mean the same thing by “Europe”—say, the geographical continent—and there is an objective truth-value to the proposition that the Mont Blanc is the highest mountain in the geographical continent. In that case, one of our disagreeing beliefs must be correct. However, the fact that one of our beliefs is incorrect does not yet mean that we can’t both have formed these beliefs in a rational way. There could be some epistemic difference between us that made these different belief states rationally available to us respectively. For example, suppose that we both look at a map of France that depicts the Mont Blanc and its height of 4,810 meters, and that I have the background belief that the highest mountain in Europe is 4,810 metres, whereas you believe, erroneously, that the highest mountain in Europe is higher than 5,000 metres. In that case, at least without further information, there are different rational belief states available to us—it is rational for me to form the belief that the Mont Blanc is the highest mountain in Europe, but for you it is rational to conclude that it isn’t. So it is possible, at least conceptually, for peers to rationally arrive at disagreeing beliefs, even if only one of these beliefs can be correct.

However, the fact that two peers have rationally arrived at such disagreeing beliefs does not yet entail that it is also rational for them to stick to these beliefs after they learn of their disagreement. It may very well be that, in the above example, even though both our belief-formations were rational relative to our different background beliefs, a conciliatory revision of these beliefs is nevertheless the most rational response to our disagreement. For instance, the knowledge that one of our disagreeing beliefs must be incorrect, and the uncertainty as to which one, can make it rational for us to temporarily suspend our beliefs and first figure out which one is correct.

So, in cases of peer disagreement that are objective, the two claims of the conciliatory view can move independently. The conciliatory view’s disagreement assumption that two peers cannot rationally arrive at disagreeing beliefs can be false while the conciliatory view’s conclusion is still true that a conciliatory revision is the most rational response

after these peers learn of their disagreement. It is for this reason that I want to treat these two claims separately.

In chapter 5, I will investigate the conciliatory view's conclusion that a revision is the most rational response, and what needs to be assumed about rationality in this respect. In this chapter I investigate the disagreement assumption that two peers cannot rationally arrive at disagreeing beliefs, and what needs to be assumed about the epistemic similarity of two peers in this respect. Why focus in this respect on the epistemic similarity of two peers? Because there is a particular argument for the disagreement assumption—understood in terms of the uniqueness thesis—which purports to show that there can be only one rational belief state available for two peers regarding a proposition, given a certain amount of epistemic similarity between them. This is further discussed in the next section.

4.3 THE UNIQUENESS THESIS

In its most general form, the uniqueness thesis says that there can be *only one* rational doxastic attitude regarding a proposition, given a body of evidence (see, for example, White [113, p. 445]). The denial of this suggestion is also known as *permissiveness*, according to which there can be *more than one* rational doxastic attitude regarding a proposition, given a body of evidence.

Both positions should be seen as competing answers to the question of how wide the limits are that evidence imposes on rational belief—as Kelly [53, p. 299] puts it: “how much slack exists between the evidence and what it's [rational] to believe given the evidence?”. The proponents of the uniqueness thesis, we could call them *restrictivists*, say that there exists no slack, and that evidence uniquely determines the doxastic attitude that is rational to adopt regarding any given proposition (see White [113, 114], Christensen [12], Feldman [29], Matheson [75], Greco and Hedden [40]). The proponents of permissiveness, we could call them *permissivists*, say that there can be slack, at least in some cases, which means that a body of evidence can sometimes leave open different but equally rational doxastic attitudes regarding a proposition (see Douven [19], Kelly [53], Meacham [79], Podgorski [86], Willard-Kyle [115]).

4.3.1 Three precisifications

We have introduced the uniqueness thesis in its general form. But the literature distinguishes at least three dimensions along which this general uniqueness thesis can be further specified (see also Kopec and Titelbaum [60]). The first dimension is the kind of *doxastic attitudes* that are supposed to be uniquely rational. Conventionally, there are

at least two candidates. The uniqueness thesis could be applied to *full beliefs* so that, given a body of evidence, the uniquely rational belief state is either to believe a proposition, or to disbelieve a proposition, or to suspend judgment. Or it could be applied to *degrees of belief*, so that, given a body of evidence, there is a uniquely rational degree of belief, or level of confidence, that can be represented by a real number between 0 and 1.

The uniqueness thesis has been discussed most extensively in the context of Bayesian degrees of belief (see, for example, Douven [19], Meacham [79]). But it has remained relatively untouched in the context of full beliefs. One of the reasons for this may be that the uniqueness thesis is thought to be more plausible in a full belief setting than in a degree of belief setting (see Kelly [53]). After all, in a degree of belief setting, there are (infinitely) many doxastic attitudes available toward a proposition, which could make it seem implausible that only one of them can be rational. In a full belief setting, on the other hand, there are traditionally only three doxastic attitudes available—namely, believing a proposition, disbelieving a proposition, or suspending judgment—which makes the uniqueness thesis more conceivable.

Since I have in this dissertation taken a full belief approach toward the problem of peer disagreement, I will investigate the uniqueness thesis in terms of full beliefs. This contributes to the existing literature in that the full belief version of the uniqueness thesis has not yet been fully scrutinized in the literature.

The second dimension is whether the uniqueness thesis is understood *intrasubjectively* or *intersubjectively*—that is, whether it is meant to apply to a single agent, or to two or more agents, if they have the same evidence. There is again a difference in initial plausibility. For a single agent, it seems more conceivable that there can be only one rational belief state regarding a proposition, given this agent's evidence, than it is for two agents, if they have the same evidence (see Kelly [53]). The reason for this is that, as we have already noted, two agents can have certain epistemic differences between them that could make different belief states regarding a proposition rational for them, even if their evidence is the same. And a single agent, of course, does not have such epistemic differences, at least not at a particular point in time. In this chapter we will be primarily concerned with the intersubjective version of the uniqueness thesis, but towards the end we will come back to the intrasubjective version as well.

And a third distinction that is worth mentioning is whether the uniqueness thesis is based on a certain conception of *evidence*, or on a certain conception of *rationality*. This is a distinction drawn from two possible arguments for the uniqueness thesis. On the evidence-based version, in short, the idea is that there can be only one rational be-

belief state regarding a proposition, given a body of evidence, because evidence is such that it can support only one belief state regarding a proposition. On the rationality-based version, the reasoning behind the uniqueness thesis is, in short, that rationality is such that it cannot permit more than one rational belief state regarding a proposition, as this would allow for irrational arbitrariness.

Observe that this distinction is relevant in relation to the distinction between the arrival and the response problem of peer disagreement. White [113, 114], for example, argues that even if a body of evidence would make it both rational to believe and rational to disbelieve a proposition—compare: even if two peers could both rationally arrive at different belief states regarding a proposition—the fact that only one of these belief states can be correct, as is the case in an objective peer disagreement, makes it irrationally arbitrary to adopt either of these belief states—compare: it cannot be rational for these peers to stick to these beliefs after learning of their disagreement. Instead, White goes on to argue, the only rational belief state in such a case is suspension of judgment—just like disagreeing peers should make a conciliatory revision. In other words, the evidence-based version of the uniqueness thesis could be false without this implying that the rationality-based version is also false, just like we saw with the arrival and response problem of peer disagreement. We will come back to the rationality-based version of the uniqueness thesis in chapter 5. In this chapter I will focus solely on the evidence-based version.

Given these specifications, the uniqueness thesis that we are going to investigate reads as follows: there can be only one rational belief state available for two peers regarding a proposition, given that these peers have the same evidence. In this light, it should also become clear why this investigation focusses on the epistemic similarity of two peers in relation to the uniqueness thesis. After all, what this version of the uniqueness thesis suggests is that it is because of a certain epistemic similarity between two peers—namely, they have the same evidence—that there can be only one rational belief state available for them. The aim of this chapter is to further investigate this line of reasoning.

It is worth a pause to consider what exactly this uniqueness thesis entails, because it amounts to a rather strong claim. As we have construed it, the uniqueness thesis means that, for any set of propositions, if two peers have the same evidence, then this uniquely fixes the rational belief states that are available for these two peers regarding all the propositions in this set. In other words, the rational belief states of two peers is a function of their evidence so that for each proposition in any set of propositions there is only one rational belief state available for both of them.

Furthermore, I take this uniqueness thesis to mean that it cannot be rational for peers to arrive at different belief states regarding the same proposition—just as the arrival claim of the conciliatory view says. That is to say, if there is only one rational belief state available for two peers regarding any proposition, then, I take it, there is only one rational belief state regarding *any* proposition that two peers can rationally arrive at. And if there is more than one such belief state available, then it can be rational for peers to arrive at these different belief states.

4.3.2 *The argument*

Our uniqueness thesis says that there can be only one rational belief state available for two peers regarding a proposition, given that these peers have the same evidence. Is this thesis plausible? In some cases, it may seem so.

Call to mind the standard restaurant case again. You and I just had dinner in a restaurant, and now we need to pay. We decide to split the bill and we both calculate our equal shares based on the evidence of our bill. And suppose the proposition at issue is that our equal share is €43. In such a case, it may be quite intuitive that there is only one rational belief state available regarding this proposition. It may seem implausible that, given our evidence, it is rational to believe that our equal share is €43 and also rational to believe that it isn't €43.

But in other cases, the uniqueness thesis it is less intuitive. Suppose that you and I are both members of a jury, entrusted with the task of deciding whether some defendant Smith is guilty. And suppose that our evidence consists of the whole case file, including the cases from the prosecuting party and the defending party, witness statements, investigative reports, and so on. In such a case, it is less intuitive that there can be only one rational belief state available for us regarding Smith's guilt (see also Rosen [94]). For instance, unlike an ordinary restaurant bill, a judicial case file can be open to different interpretations. And, unlike simple arithmetic, the right application of the law can sometimes also be interpreted in different ways. So in this case there seems to be more room for different rational conclusions regarding Smith's guilt, despite the fact that we have the same case file to our disposal.

What reasons do we have to think that the uniqueness thesis is nevertheless correct? In the literature there is one central argument for the uniqueness thesis, as we have construed it (see White [113, 114], Feldman [29], Matheson [75]). The argument makes use of two assumptions.

The first assumption is about the nature of *rationality*, namely that a belief state regarding a proposition is rational for an agent if and

only if this belief state is supported by this agent's evidence (see, for example, White [113, p. 447]. So, on this assumption, rational belief is completely determined by, a function of, what the evidence supports. As an aside, it is often observed that this assumption is a close cousin of evidentialism—the epistemological theory that a belief state regarding a certain proposition is justified for an agent at a particular time if and only if this belief state fits the evidence of this agent at that particular time (for more details about this relation, see also Matheson [75]).

The second assumption concerns the nature of *evidence*. This is the assumption that a body of evidence cannot support two different belief states regarding a proposition (see, for example, Feldman [29, 204ff]). More precisely, it is the assumption that, for any proposition, an agent's evidence either supports this proposition, or it supports its negation, or it remains neutral.

This assumption is sometimes compared to a set of balancing scales (see, for example, Matheson [75, p. 364]). When a weight is put on each scale, there are only three ways the scales can be: either the left side goes down, or the right side, or the scales remain evenly balanced. It can't be that both the left side and the right side go down (at least not without some serious malfunctioning of the balancing scales). And it is argued that this is analogous to the evaluation of a body of evidence with respect to a certain proposition. The idea is that such an evaluation can result in only one of three possible outcomes: either the evidence supports believing this proposition, or it supports disbelieving this proposition, or it remains evenly balanced between the two, in which case it is thought to support suspending judgment. In any case, it is not possible for a body of evidence to support believing a proposition and support disbelieving that proposition.

From these two assumptions, the uniqueness thesis quickly follows: given that two peers have the same evidence, there can be only one rational belief state available for them regarding a proposition. And this, in turn, would validate the arrival claim of the conciliatory view—namely, that it cannot be rational for two peers to arrive at different belief states regarding a proposition.

But should we accept these assumptions? Again, this depends. When we look at the restaurant example, they appear quite acceptable. In that scenario, what is rational for us to believe seems to be completely determined by our evidence, namely our bill. And it also looks as if this evidence can only either confirm a given calculation of our equal shares, or it confirms its negation, or it remains neutral.

However, when we look at the jury case, the two assumptions are more substantial. In that case, it is not obvious that there can't be factors other than our evidence that play a role in what is rational for us to believe regarding Smith's guilt. For example, what is rational for

us to believe may also depend on our interpretation of the evidence, on our interpretation of the law, and perhaps even on certain values we hold as to what is just, or fair. And even if what is rational for us to believe in this case would be completely determined by our evidence—say, the whole case file—then it remains to be seen whether this evidence can indeed only either support the verdict that Smith is guilty, or the verdict that Smith is not guilty, or remain undecided between the two. It is at least conceivable that for me the evidence supports the verdict that Smith is guilty, while for you it does not support this verdict.

The point I want to make with this brief inspection is that the case for the uniqueness thesis, as it stands, is at least in need of further precisification. In this respect, I want to address three issues. First, what exactly should be included under the shared evidence of two peers that is supposed to uniquely determine for them what is rational for them to believe regarding any proposition? Second, can this shared evidence indeed stand in only one of three support relations towards any proposition? Third, is rational belief indeed completely determined by this evidence—that is, can't there be other, non-evidential, factors that can also guide rational belief-formation?

We will address each question in the course of the next three sections, starting out with the question of what it is for two peers to have the same evidence.

4.4 TOTAL EVIDENCE

One of the central issues in the uniqueness thesis, and indeed the whole debate about peer disagreement, is what should be included under the same evidence of two peers. After all, the more is included under this evidence, the more plausible the uniqueness thesis becomes, and the less is included, the less plausible it becomes. For instance, if the shared evidence of two peers includes a complete epistemic machinery that uniquely specifies for each incoming piece of evidence what is rational to believe, then the uniqueness thesis is almost a given. But if the shared evidence of two peers includes only, say, some physical piece of evidence, or some observation, then the uniqueness thesis is almost certainly false. So the question is: what should be included under the same evidence of two peers? Let me take on this question by revisiting the jury example.

Suppose that you and I are both members of a jury, entrusted with the task of deciding whether some defendant Smith is guilty. What is it for us to have the same evidence in the case? Typically, the members of a jury are provided with all the case documents, such as witness statements, the case from the prosecuting party, the case from the defending party, investigative reports, and so on. Suppose we both have all these

documents in our possession, and that we have both observed all the proceedings during the trial. Is this how sameness of evidence should be understood in the uniqueness thesis? I suppose it is not. There are at least two reasons for this, both having to do with the theory-ladenness of observation—that is, the phenomenon that the same evidence, or observation, can be different for agents with different theories (see, for example, Brewer and Lambert [7]; a locus classicus is Kuhn [62]).

First, there are different ways in which you and I can translate this observational evidence into propositions. For example, when we both look at the evidence of Smith's fingerprints on the murder weapon, I may come to accept the proposition that Smith's fingerprints are on the murder weapon, whereas you arrive at the conclusion that Smith's fingerprints *of his right hand* are on the murder weapon. This results in different bodies of evidence which, downstream, can lead us to different, possibly rational, beliefs with respect to Smith's guilt. (For example, it may turn out that Smith couldn't have murdered the victim with his right hand, which presents a defeater for the evidence as you have interpreted it, but not for my interpretation.)

So, how sameness of evidence should be understood in the uniqueness thesis is not in terms of physical evidence, or observations. Rather, what it is for you and me to have the same evidence, at least with respect to the uniqueness thesis, is to have accepted the same set of propositions on the basis of our physical evidence, or observations.

Second, as also pointed out by, for example, Kelly [53] and Meacham [79]), sameness of evidence should in this regard also include sameness of background beliefs. This is because what a body of evidence supports depends in part on an agent's background beliefs. For example, when you and I both listen to a witness testifying that Smith is guilty, and I have the background belief that this witness is a notorious liar, but you don't have such a belief, then for you this evidence supports the proposition that Smith is guilty, but for me it doesn't. Thus, if we have different background beliefs, our shared evidence can make different belief states rationally available for us regarding Smith's guilt.

So, if the uniqueness thesis is to succeed at all, the shared evidence of two peers should be understood as a set of propositions that they both accept, and this set of propositions should also include the background beliefs of the two peers. Following the literature, let us call such a set of propositions the total evidence. More specifically, two peers have the same total evidence only if they have the same belief states regarding all the propositions, be it in the evidence or in the background beliefs, that are relevant to the proposition under consideration. Observe that such a strong condition is required because, as indicated above, only one difference in belief states in the background can be sufficient to make a difference in what is rational to believe regarding the proposition

that is at issue. So, what it is for two peers to have the same total evidence, at least with respect to the uniqueness thesis, is to have the same belief states regarding all the propositions appertaining to the target proposition.

There are no doubt other conceptions of total evidence available. But I take it that the present construal is also the conception of total evidence that the proponents of the uniqueness thesis have in mind (see, for example, White [114, p. 314]).

As a last observation, I would like to point out that, simple though they may seem, these conditions on peerhood make actual peers a rare phenomenon. Indeed, one may wonder whether there are ever two people with the exact same belief states regarding all the propositions that are relevant to some target proposition. We will come back to this near the end of this chapter.

This concludes our answer to the first question. In the next section I investigate the second question: can this same total evidence of two peers assume only one out of three support relations regarding any given proposition?

4.5 UNDERDETERMINATION

According to the uniqueness thesis, a total body of evidence either supports a proposition, or its negation, or remains neutral between the two. Unfortunately, the proponents of the uniqueness thesis leave it unspecified what it is for evidence to assume only one of these three support relations. The most that is done by way of argumentation is a statement of the intuition that a body of evidence cannot both support a proposition and support its negation (see, for example, White [113, p. 447]). And this intuition is sometimes further specified by the analogy of the balancing scales. As we have seen earlier, this is the idea that, just like there are only three positions for a set of scales when some weight is distributed over it—either the left side goes down and the right side goes up, or it is the other way around, or the scales remain evenly balanced—so it is for a body of evidence when this evidence is evaluated against a proposition and its negation: the evidence either favors the proposition, or it favors its negation, or it remains undecided between the two (see Matheson [75, p. 365]).

It is worth emphasizing how important this assumption about evidential support is. To see this, observe that we have presumed from the outset that our epistemic goal is to believe what is true, and to disbelieve what is false, and that we should follow what the evidence supports in this respect. And if the above assumption about evidential support is true, then it follows quickly that the uniqueness thesis is true, and, consequently, that there cannot be more than one rational belief

state available for two peers regarding any proposition, given that they have the same total evidence.

However, when we take a closer look, the assumption about evidential support is not as obvious as it may seem. That is to say, without further information, it is not evident that the total evidence of two peers—that is, their identical belief states regarding all the propositions appertaining to a target proposition—can indeed only either support this proposition, or supports its negation, or remain undecided. I want to illustrate this by highlighting two varieties of the phenomenon of *underdetermination*, which is the phenomenon that often, and perhaps even always, there remains some room between a body of evidence and what this evidence supports—or, at least, between a body of evidence and what is rational to believe on the basis of this evidence.

4.5.1 *Evidential holism*

Perhaps the clearest illustration of the idea that evidence does not always straightforwardly dictate what is supported, or what is rational to believe, is the phenomenon of *evidential holism*, also known as the *Duhem-Quine thesis*. There are different versions of this form of underdetermination (for an overview, see Morrison [82]), but generally the idea is that a piece of conflicting evidence counts against entire theories, including all the auxiliary propositions, rather than individual target propositions. The idea is neatly summed up by Duhem [21, p. 187], but see also Quine [91, pp. 42-43]:

[An agent] can never subject an isolated hypothesis to experimental test, but only a whole group of hypotheses; when the experiment is in disagreement with his predictions, what he learns is that at least one of the hypotheses constituting this group is unacceptable and ought to be modified; but the experiment does not designate which one should be changed.

Quine [91] gives the example of some piece of evidence conflicting with the belief that there are brick houses on Elm Street. For instance, it could seem to me, looking at the houses on Elm Street, that they are not made from brick, but from wood. The point of the Duhem-Quine thesis is that in such a case the evidence does not directly indicate that I should give up my belief that there are brick houses on Elm Street. There are many other ways in which such conflicting evidence can be accommodated. I could instead revise my beliefs about the way that a brick house looks, or about the location of Elm Street, or even about the reliability of my present experience. In any case, the conflicting evidence, in itself, does not determine whether the ‘evidential

blame' should be placed on some target proposition, or instead on some auxiliary proposition.

The phenomenon of evidential holism casts doubt on the uniqueness thesis in the following way. Going back to the jury example, suppose that, given our total evidence, we both believe that Smith is guilty. And suppose that, contrary to what we expected, further investigations reveal that Smith's fingerprints are not on the murder weapon. In that case, there are different ways in which this conflicting evidence can be accommodated.

One option is to conclude that Smith is not guilty after all. But another option is to make some adjustment elsewhere in our total evidence—that is, in our belief states regarding the other, auxiliary, propositions appertaining to the target proposition. For instance, as an alternative, we could give up our background belief that the weapon that was investigated is indeed the murder weapon, or the background belief that the murderer's fingerprints must be on the murder weapon, or the background belief that the investigation of the murder weapon was reliable and that the evidence has not been tampered with. If need be—at least this is what Quine thought—we could even revise our logic so that we can come to hold conflicting beliefs in our total evidence without being inconsistent.

Indeed, Quine [91, p. 40] went so far as saying that “[a]ny statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system”. Now, maybe this goes too far for our present purposes; at least, we haven't done enough to justify such a claim. But what the above example shows, at minimum, is that there can be different ways to adjust one's belief states—both regarding some target proposition as well as regarding the auxiliary propositions that make up the total evidence—in order to accommodate a piece of conflicting evidence. This evidence, in itself, without further qualification, remains silent as to where its support should go, and where its blame, and what is rational to believe accordingly. This doesn't necessarily mean that, contra the uniqueness thesis, all these different belief states are equally well supported. But the lesson that we should take away from the Duhem-Quine thesis is that the proponents of the uniqueness thesis will have to provide a further argument as to why, in situations of underdetermination, only one of the various alternative belief states is supported by the evidence.

Furthermore, what this means for the purposes of this chapter is that the epistemic similarity of two peers as we have construed it thus far—namely, that two peers have the same total evidence, meaning that they have the same belief states regarding all the propositions appertaining to the target proposition—is not yet sufficient to make it the case that only one belief state can be supported, and so be rational, for them

regarding a proposition. Some further epistemic property—such as a particular weighting of the evidence—needs to be specified and added to the epistemic similarity of two peers in order for this condition to obtain. In the next section we will investigate one such possibility. But first I want to look at another variety of underdetermination that similarly shows that evidence does not always straightforwardly dictate what is supported, or what is rational to believe.

4.5.2 *Equivalent alternatives*

Another variety of underdetermination—similar to but generally distinguished from evidential holism—is the phenomenon of alternative hypotheses that are evidentially equivalent yet logically incompatible. More specifically, it is the phenomenon that two different, incompatible theories can have the same evidential, or empirical, implications so that if the one theory is supported by the evidence, then so is the other—in other words, these theories cannot be better or worse supported by the same body of evidence. As Quine [92, p. 313] puts it:

If all observable events can be accounted for in one comprehensive scientific theory—one system of the world, to echo Duhem’s echo of Newton—then we may expect that they can all be accounted for equally in another, conflicting system of the world.

A standard illustration of this variety of underdetermination is the data plotting example (see, for example, Stanford [101]). Suppose we have a finite collection of data points—that is, a finite amount of evidence—and we want to find the mathematical function that returns these data points in a curve—that is, in a way, we want the proposition that is supported by the evidence. It can be proven that there is an infinite number of distinct mathematical functions, describing different curves, that capture all these data points equally well. In other words, there is always an infinite number of incompatible mathematical functions that can account for a finite number of data points. Of course, as the collection of data points grows larger—that is, as we acquire further evidence—some of the initially adequate mathematical functions will no longer pass through all the data points and so can be eliminated. But no matter how large the collection grows, as long as it remains finite there will always be more than one mathematical function that adequately describes all these data points in a curve.

It is not hard to see how this variety of underdetermination relates to the uniqueness thesis. Suppose that two peers have as their total body of evidence precisely such a collection of data points as described above. And suppose that we have as two incompatible propositions two

distinct mathematical functions that both adequately describe all these data points, but in different curves. According to the proponents of the uniqueness thesis, the total evidence of the two peers can only either support a proposition, or support its negation, or support neither. But in this case both the mathematical functions capture all the data points equally well. So, in a way, both mathematical functions are equally well supported by the evidence. At least, if the one function is supported by the evidence, then so is the other, as the two functions are evidentially equivalent. Accordingly, in this case, if the one proposition is rational to believe, on the basis of the evidence, then so is the other. This would mean, in turn, that there can be two different rational belief states available regarding a proposition, given the same total evidence.

(Alternatively, it can be said that neither of the two mathematical functions is supported, because, given the total evidence at this stage, the one function does not capture the data points more adequately than the other. Accordingly, it can be objected, neither proposition is rational to believe—instead, the only rational belief state is suspension of judgment. We come back to this in section 4.5.3.)

Here is a more concrete example. Going back to the jury case again, suppose that we started out with a few suspects in mind. As more and more evidence is presented in the court room, however, we are able to cross several suspects of our list. For instance, we learn that one of the suspects has a good alibi, and another suspect is eliminated by a witness statement, and a third suspect could not have committed the murder because she is left-handed. However, no matter how much evidence is presented in court, as long as it remains finite it remains hard to rule out alternative hypotheses that are compatible with our total evidence. For example, suppose that on balance our total evidence points in the direction of Smith having committed the murder. Then this evidence is still compatible with the alternative hypothesis that some unknown individual is framing Smith and has staged all the evidence pointing in Smith's direction. Our total evidence, as it stands, remains undecided between these two alternative hypotheses.

If the uniqueness thesis is true, then our total evidence supports only one belief state regarding a proposition—it either supports believing that Smith is guilty, or it supports believing that Smith is innocent, or it supports suspension of judgment. However, in the example our evidence is compatible with the proposition that Smith is guilty and with the proposition that Smith is innocent because some individual is setting her up. So, which of the alternative belief states is uniquely supported by the evidence? And why, if indeed one of them is supported, isn't the other belief state likewise supported, since the total evidence, in itself, does not distinguish between them?

Whatever the answer, the point of highlighting these two branches of underdetermination is that, as it stands, the conception of peerhood as agents who have the same total evidence does not suffice to make the uniqueness thesis hold between them. As we have seen, a total body of evidence can leave open different belief states regarding a proposition. What is needed for the uniqueness thesis to hold between two peers, then, is a further argument as to why only one of these belief states is in fact supported by the evidence, and thus rationally available for two peers who have shared this evidence.

To briefly recapitulate, what does this mean for the conciliatory view? The arrival claim of the conciliatory view was that two peers cannot rationally arrive at disagreeing belief states regarding a proposition, given their overall epistemic similarity. What we have learned is that further argumentation is required as to why the epistemic similarity of two peers indeed makes available only one rational belief state regarding a proposition. Because, as it stands, the epistemic similarity of two peers—construed as them having the same total evidence—can leave open different belief states regarding a proposition.

4.5.3 *Suspend judgment?*

Perhaps the proponents of the uniqueness thesis see an easy way out. They could maintain that in the above examples the evidence does not decisively favor the one belief state over some rival alternative, and that therefore judgment should be suspended. In other words, in cases of underdetermination, the belief state that is uniquely supported by the evidence is suspension of judgment.

I suppose that on this account the uniqueness thesis would go a long way. But it comes at a price. If the rational response in all cases of underdetermination is to suspend judgment, then rational belief may become an increasingly rare phenomenon. The more of our beliefs are viewed as subject to underdetermination, the more of our beliefs we would have to give up. That is to say, for a belief to be rational, it should be decisively favored by our evidence. And it can be argued that not many of our beliefs classify as such.

To see this more clearly, consider the phenomenon of evidential holism again. The example we gave was that the conflicting evidence that Smith's fingerprints are not on the murder weapon leaves undetermined how we should respond. To accommodate this evidence, we could give up our belief that Smith is guilty. But we could also give up our belief that the weapon that was investigated is indeed the murder weapon, or the belief that the murderer's fingerprints must be on the murder weapon, or the belief that the evidence has not been tampered with, to name a few options.

Now, the reply from the proponents of the uniqueness thesis may be that, since the evidence remains undecided between these alternatives, the evidence uniquely supports suspension of judgment. But then we can ask: suspension of judgment about what? Recall that the point of the Duhem-Quine thesis is that conflicting evidence counts against entire theories, rather than individual propositions. So should we give up the entire theory whenever some piece of conflicting evidence comes in that leaves undetermined which propositions in the theory should be given up? I doubt that even the proponents of the uniqueness thesis are willing to go this far. So should we instead suspend judgment only about some part of the theory? But then again, which part should be given up, given that this is left undetermined by the evidence? So the suggestion that in cases of evidential holism judgment should be suspended is too simplistic, because there are different parts of a theory that can be suspended to accommodate conflicting evidence.

The suggestion to suspend judgment is also problematic in cases of underdetermination of evidentially equivalent alternatives. To be sure, sometimes when the evidence leaves open alternative hypotheses, the rational response is indeed to suspend judgment, and to go look for further evidence in order to find out what should be believed. But one of the main problems of underdetermination is that often there remains some rival alternative hypothesis that is equally compatible with all the evidence, no matter how much new evidence comes in. A standard example is the Cartesian-like alternative hypothesis that all our evidence is misleading, and that the world is in fact very different from what the evidence indicates, because we are being deceived by an evil demon, or because we are brains in vats, or run by some computer simulation, or what have you.

For many of the hypotheses that we consider, then, we can come up with some alternative hypothesis that is incompatible, but which is equally compatible with all the evidence, simply because it is the hypothesis that all the evidence is misleading and that the opposite of what the evidence indicates is in fact true. And even though such a skeptical alternative may oftentimes seem far-fetched and outrageous, the point is that no possible evidence could ever decide between our normal everyday beliefs and such an alternative possibility, because the two scenarios will remain evidentially indistinguishable. Whatever new evidence may be gathered in the future, it will never be able to rule out such a skeptical alternative.

So, if the suggestion is indeed that judgment should be suspended whenever the evidence does not decisively favor the one belief state over some rival alternative, then, arguably, the uniqueness thesis implies that we should suspend judgment about many of the things we believe in.

Because for many of our beliefs, there is some rival alternative that is incompatible yet evidentially equivalent.

Of course, the proponents of the uniqueness thesis, and with them the defenders of the conciliatory view, could choose to bite this bullet. But it makes the uniqueness thesis a very strong claim, as it would entail that the belief state that is uniquely rational to adopt regarding many propositions is suspension of judgment. If, on the other hand, they are not willing to go this far, they must add some further shared epistemic property, or properties, to the conception of peerhood so that a rational belief can be singled out in cases where their total evidence leaves upon various alternatives. That is to say, if the proponents of the uniqueness thesis want to secure a uniquely rational belief in cases of underdetermination, rather than suspension of judgment, peers must be given some extra feature, in addition to their shared total evidence, that will make only one rational belief available to them when this total evidence gives out.

In chapter 5 I further investigate the suggestion that suspension of judgment is the only rational response in cases of underdetermination. For the remainder of this chapter, I further investigate the alternative option, which is to further constrain the notion of peerhood so that the uniqueness thesis holds also in cases of underdetermination.

4.6 CONSTRAINING PEERHOOD

The problem of underdetermination has spun a rich tradition of thinking about rational belief in cases where the evidence does not decide between competing theories, or belief states regarding propositions (see, for example, the collection of papers in Savage [95], or, for an overview, Stanford [101]). One key issue is precisely how to avoid an excessive loss of beliefs given the phenomenon of underdetermination—that is, how an unwelcome suspension of judgment can be prevented.

In this section I want to look at one influential suggestion—or, rather, a cluster of suggestions—namely, to order underdetermined theories in accordance with some *extra-evidential epistemic value*—for example, simplicity, or fruitfulness. The idea is then that, rather than suspending judgment, the most rational option is to opt for the theory that scores highest on such a value. Note that these epistemic values are *extra-evidential*, meaning that they have to do with something other than the evidence, because in cases of underdetermination the competing theories do equally well with respect to the evidence. The whole point of underdetermination, after all, is that the competing theories are evidentially indistinguishable. (Note also that this undermines the assumption about rationality behind the uniqueness thesis—namely, that rational belief is completely determined by evidence.)

This suggestion of ordering relative to some epistemic value could be used by the defenders of the conciliatory view to further enrich the conception of peerhood so as to make the uniqueness thesis hold between them. More specifically, the conception of peerhood could be further constrained such that peers must not only have the same total evidence, but as a further epistemic property also the same ordering, or weighting, of the available belief states, relative to some designated epistemic value. And the hope would be that this will make sure that only one of the belief states will be rationally available for two peers in cases of underdetermination.

In what follows I discuss two ways in which the above suggestion can be incorporated in the conception of peerhood. The first is related to evidential holism, and is a particular ordering—a so-called *entrenchment ordering*—of the total evidence in cases where conflicting evidence leaves open which of various alternative belief states should be given up. The second pertains to evidentially equivalent alternatives, and is a certain ordering of theories relative to a designated *theoretical virtue* in cases where the evidence alone is not sufficient to discriminate between such theories.

4.6.1 *Same epistemic entrenchment*

A typical solution to the problem of evidential holism is to make a certain priority ordering of the belief states that are affected by a piece of conflicting evidence, and then discard the belief states with the least priority, and keep the more valuable ones. This relieves the pressure to suspend judgment about the theory as a whole when some piece of conflicting evidence leaves it undetermined which parts of the theory should be given up.

The basic idea of course dates back to Quine [91]. From this paper, the picture of the ‘web of beliefs’ arose, according to which our total collection of beliefs make up a kind of web. Some of our beliefs are situated in the centre of the web; these beliefs are connected to, and underpin, many other beliefs, and play a central role in our cognitive lives. Other beliefs are found more along the edges of the web; these beliefs are more closely connected to experience, and don’t play such a supporting role for the rest of the beliefs.

And, on this picture, a principle that could guide belief revision in the face of conflicting evidence is that of *conservatism*, sometimes called the *principle of minimal mutilation*: when forced to give up a belief in the face of conflicting evidence, we should choose the belief that least disturbs the rest of the web of beliefs. (In fact, the position of a belief in the web, whether it is a central belief or a more peripheral belief, could even be defined in terms of our willingness to give it up when

confronted with conflicting evidence. That is to say, when the evidence leaves open two beliefs that can be given up to restore consistency, and we choose the one belief, then what this means is that this one belief plays a less central role in our web than the other one.)

This insight was further developed by Gärdenfors and Makinson [37], using the notion of *epistemic entrenchment*. Here, comparably, the idea is that certain beliefs are more important, have a higher priority, than others when it comes to planning future actions, conducting scientific investigations, or reasoning in general. The more entrenched a belief is, the more important it is in these respects, and the less entrenched a belief is, the less important it is to us. Accordingly, when confronted with evidence that conflicts with our beliefs but leaves undetermined which one should be given up, we should give up the least entrenched belief, and keep the more entrenched ones.

There is a lot more that can be said about the formal structure of epistemic entrenchment (see Gärdenfors [36]), as well as about the exact organization of a Quinean web of beliefs (see Quine and Ullian [93]). But we don't need too many details to see how it can be used to further constrain peerhood in order to make the uniqueness thesis hold between them, given evidential holism.

In brief, the idea would be to incorporate into the notion of peerhood not only the epistemic property of shared total evidence, but also the property of this total evidence having the same ordered structure. That is to say, on this conception, two peers must have, in addition to the same total evidence, also the same entrenchment ordering over this total evidence—that is, an identically structured web of beliefs. And this ordering must be such that for each belief in the total evidence it can be specified whether it is more or less entrenched—more or less centrally located in the web—than another belief. Furthermore, the proponents of the uniqueness thesis must take on board the principle of minimal mutilation—namely that, when some piece of conflicting evidence comes in that leaves it undetermined which of various alternative beliefs should be given up, the rational response is to only give up the minimal amount of least entrenched beliefs that is required to restore consistency. If peerhood is thus further constrained, the uniqueness thesis goes a long way: there will typically be only one rational belief state available for such peers regarding each proposition in their total evidence, given a conflicting body of evidence.

We can illustrate this again with the jury example. Recall that our conflicting evidence that Smith's fingerprints are not on the murder weapon left it undetermined which of various alternative beliefs should be given up: our belief that Smith is guilty, our belief that the weapon investigated is indeed the murder weapon, our belief that the murder weapon has not been wiped clean—to name only a few options. Now,

the suggestion is that we, as each other's peers, not only have this same total evidence, but also the same entrenchment ordering over all these beliefs such that, for example, the third belief is more entrenched than the second belief, and the second belief is more entrenched than the first belief. In that case, if we apply the principle of minimal mutilation, there is only one rational belief state available to us regarding the propositions in our total evidence: namely, we should give up the first belief, and keep the other two. In other words, if we have these further epistemic properties in common as peers, then the uniqueness thesis holds between us, despite evidential holism.

However, it should be noted that these are rather strong constraints on the conception of peerhood. To see this, observe that, under the above constraints, two agents are each other's peers only when they are, in effect, identical versions of one and the same epistemic agent, since they must have the same beliefs as well as the same ordering of these beliefs. Indeed, not only must they be identical versions of the same epistemic agent, this agent must also be a particular kind of agent: namely, one that has a web of beliefs that is so well-structured that for each belief it is specified whether it is more or less entrenched than another belief, and, moreover, one that has as a belief-revision principle the rule of minimal mutilation. Such heavy demands make actual peers, and with that peer disagreement, a rare phenomenon, perhaps even up to the point of non-existence. I doubt whether this is the intention of the proponents of the uniqueness thesis, or indeed the defenders of the conciliatory view.

I come back to this at the end of this section. First I want to consider a comparable constraining of peerhood, namely for cases of evidentially equivalent alternatives.

4.6.2 *Same theoretical virtues*

Ordinarily, when faced with a choice between various rival theories, or alternative belief states, we should opt for the theory that is best supported by our evidence because this our best indication that the theory is true. However, in a cases of underdetermination, as we have seen, this yardstick proves too short. That is to say, in cases of evidentially equivalent alternatives, the theories do equally well with respect to the evidence, so it is, qua evidence, undetermined which of the theories is most likely to be true.

A typical solution to this problem of evidentially equivalent alternatives is to order theories in accordance with other, extra-evidential epistemic values, also known as theoretical virtues, and then opt for the theory that scores highest on such a value. This makes it possible

to make a rational choice, rather than suspending judgment, when the evidence does not decide between two rival theories.

There are many theoretical virtues put forward in the literature. Let me give two examples of suggestions. Perhaps most famously, Kuhn [64] lists five theoretical virtues: accuracy, consistency, broad scope, simplicity, and fruitfulness. Alternatively, Quine and Ullian [93] present five somewhat different virtues: conservatism, modesty, simplicity, generality, and refutability.

When two different theories, or belief states regarding a proposition, are evidentially equivalent, they can be evaluated against one of these theoretical virtues, or perhaps a combination thereof. And if it is further assumed that such a virtue can co-determine rational belief, then the theory that scores highest on this evaluation may be designated as the most rational choice. Such a strategy would enable rational belief, rather than suspending judgment, in cases of underdetermination.

There is much more that can be said about theoretical virtues (see also Laudan [69]). But again, just as with epistemic entrenchment, we don't need too many details to see how this strategy can be used to enrich the conception of peerhood in order to secure a uniquely rational belief for peers, given evidentially equivalent alternatives.

To see this, reconsider our jury example in which our total evidence was compatible with two rival hypotheses—given our evidence, it could be that Smith is indeed guilty, but it could also be that she is innocent because some individual is setting her up. Now, rather than making suspension of judgment the only rational option in this case, another option is to invest us, as each other's peers, with the same preference for a certain, extra-evidential, theoretical virtue, or a combination of virtues, such that our rival hypotheses can be ordered accordingly. For example, we could both have a preference for simplicity, so that when the evidence does not decide between two theories, we prefer the theory that is the simplest—say, the theory that requires the least assumptions. In that case, we could reason that the first hypothesis is simpler than the second, because the first hypothesis doesn't require the postulation of some extra individual who is framing Smith.

Note, however, that a shared preference for simplicity is not enough. There should also be agreement about what simplicity amounts to, how such simplicity can be measured. In addition to this, the underdetermined theories should be distinguishable in terms of such a simplicity measure, and the criteria for rational theory choice should be such that simplicity indeed can help to determine rational belief in cases when the evidence gives out. If all of these factors are accounted for, then there is going to be a uniquely rational state available to us. Under these constraints and conditions, that is, the uniqueness thesis does in-

deed hold, despite the fact that the hypotheses we are considering are evidentially equivalent.

Observe, however, that again that these are rather strong constraints on the conception of peerhood. The above construal effectively means that two agents are each other's peers only when they, first of all, have the same total evidence—meaning that they have the same belief states regarding all the propositions appertaining to the target proposition; but secondly, also use the same theoretical virtue, or virtues, to order possible belief states that are left undetermined by the evidence; and third, these virtues must in addition be specific enough so that in each case of underdetermination a determinate ordering of possible belief states can be made in such a way that only one belief state comes out on top. This doesn't make actual peers easy to come by.

4.6.3 *Does it ever occur?*

We have seen two illustrations of how the epistemic similarity of two peers can be further constrained so as to make a uniquely rational belief state, rather than suspension of judgment, available to such peers in cases of underdetermination.

I would like to stress that these were mere illustrations, and that there may be various other ways in which peerhood could be further constrained with the same result, corresponding to various other ways in which the pressure to suspend judgment could be relieved in cases of underdetermination.

To give only one natural example, peers could also be furnished with a complete Bayesian machinery as an additional epistemic property. This would have to include at least a fully specified prior probability distribution and a fully specified Bayesian update rule that determines for each new piece of evidence the (uniquely rational) posterior probabilities (for further discussion, see also Meacham [79]). If peers were to be further constrained in this way, the uniqueness thesis would certainly go a long way. In fact, the Bayesian approach is by many philosophers considered to be the best way to resolve the problem of underdetermination (see, for example, Strevens [103]).

However, the point of this whole section is that, if the proponents of the uniqueness thesis don't want to make suspension of judgment the only rational option in cases of underdetermination, then they will have to further specify the conception of peerhood so that there will be a uniquely rational belief available to peers in such cases. The problem, however, is that securing a uniquely rational belief this way in cases of underdetermination is no easy feat. Substantial further assumptions and epistemic properties will have to be added to the conception of peerhood to accomplish this. And the drawback of this strategy is that

it will make peerhood an increasingly rare phenomenon. This will make the uniqueness thesis, if valid, a suggestion that seldom applies. And this, in turn, will make the arrival claim of the uniqueness thesis—that peers cannot rationally arrive at disagreeing belief states—a claim with a similarly limited applicability.

4.7 CONCLUSION

In this chapter we have investigated what needs to be assumed about the epistemic similarity of two peers for the purposes of the conciliatory view. We have argued that, if the defenders of the conciliatory view want to maintain that it is impossible for peers to rationally arrive at disagreeing beliefs, then they must take on board one of two further assumptions.

Either they can commit the conciliatory view to the assumption that suspension of judgment is the uniquely rational belief state in cases of underdetermination—whenever the total evidence of the disagreeing peers does not decisively favor the one theory, or belief state, over some rival alternative. This commitment, however, has the drawback that it makes the conciliatory view a particularly skeptical position.

Or the defenders of the conciliatory view can put further constraints on the epistemic similarity of two peers, such that they not only need to have the same total evidence, but as a further shared epistemic property also whatever extra-evidential factors are required to single out a uniquely rational belief state in cases of underdetermination—for example, the same entrenchment ordering, or the same preference for a particular theoretical virtue. The downside of these additional constraints, however, is that it makes actual peers an increasingly rare phenomenon. And this, in turn, makes the conciliatory view a position with a similarly limited applicability.

Furthermore, in the next chapter we will see that there is room for rational disagreement even when the epistemic similarity of two peers is maximally constrained so that they are in effect one and the same epistemic agent. Because what we haven't discussed so far is *rationality*. So far we have confined our discussion to the kind of *disagreements* and the kind of *agents* that fall under the scope of the conciliatory view. But whether peers can rationally disagree also depends, of course, on how rationality is understood. This is further discussed in the next chapter.

In this chapter I investigate and make more precise how rationality should be understood in relation to the conciliatory view. I identify the conception of rationality that is required for the conciliatory view as being *non-permissive*, meaning that it does not permit adopting or retaining a belief state when there is insufficient reason to think that this belief state is correct rather than an alternative belief state. I argue that the argumentation for this conception is inconclusive, and even question-begging in light of a more permissive conception of rationality that I develop in this chapter. And on this permissive conception, it can be rational to retain one's belief in the face of peer disagreement. I conclude that further argumentation is required as to why the non-permissive conception of rationality behind the conciliatory view should be preferred over our permissive alternative.

5.1 INTRODUCTION

The third and last topic of investigation in this dissertation is the notion of rationality to which the conciliatory view is committed, and the notions of rationality it must exclude. More precisely, I will investigate how rationality should be understood in order for the *response claim* of the conciliatory view to hold—namely, that the only rational response to the disagreement from a peer is to make a conciliatory revision of the disputed belief.

As will become clear, the debate about peer disagreement can be seen as a debate about rationality. It revolves around the question whether rationality is such that it permits us to retain our beliefs in the face of peer disagreement. Accordingly, the conciliatory view can be seen as making a claim about rationality, namely that rationality is not permissive in this way; instead, rationality requires us to revise beliefs that are disputed by our peers. In this chapter, we will identify this claim as being driven by a *non-permissive* conception of rationality. The aim of this chapter is to confront this non-permissive conception of rationality with a permissive alternative that *does*, or at least *can*, allow us to retain our beliefs in the face of peer disagreement.

Our starting point is a pendant of the uniqueness thesis we saw in chapter 4. I will call this pendant the *non-permissiveness thesis*. In brief, the thesis is that, given a body of evidence, there cannot be two different rational belief states regarding a proposition, on pain of

arbitrariness. The seminal argument for the thesis was recently made by White [113], but the basic idea behind the argument is widespread in epistemology. It is the idea that when one is faced with the options of believing a proposition and disbelieving it, and these options are epistemically speaking on a par—meaning that the evidence supports the one just as well as the other—the only rational course of action is to suspend judgment (see also Feldman [29]).

Observe how this line of reasoning is intimately connected to the central argument behind the conciliatory view we saw in chapter 2. This was the argument, recall, that when one's belief is confronted with the disagreeing belief of a peer, these belief states are epistemically on a par; there is no reason to think that one's own belief is correct rather than the belief of the disagreeing peer. As a result, the argument continues, the only rational response is to make a conciliatory revision of the disputed belief—which in this dissertation we have construed as suspension of judgment.

In section 5.2 I set out in more detail how the non-permissiveness thesis relates to the conciliatory view. And in section 5.3 I further explain the argument from White [113] for the non-permissiveness thesis.

The non-permissiveness thesis has been extensively discussed in the literature (see, for example, Douven [19], Ballantyne and Coffman [2], Meacham [79], Kelly [53], White [114], Podgorski [86]). But, as I will further explain in section 5.3.1, what has not yet received the attention it deserves is the basic assumption behind the argument—namely, that when two belief states regarding a proposition are epistemically on a par, it cannot be rational to opt for one of these belief states, and instead the only rational course of action is to suspend judgment. In this chapter I will challenge this assumption.

In that light, the next step in the investigation is to confront the non-permissiveness thesis with a permissive alternative. Our permissive alternative is derived from the pragmatic context of making decisions and taking action. In this context, as also conceded by Feldman [29], it *can* be rational to perform some action, as opposed to suspending action, when this action is practically speaking on a par with some alternative action—that is, if this action serves one's goals just as well as the alternative action. The reason for this is that, in some cases, just picking an action out of a number of equally good alternatives can give more utility—be more useful, or be more in one's interest—than doing nothing (see Morgenbesser and Ullmann-Margalit [81]).

A nice illustration of this is the story of Buridan's ass. Imagine that an ass that is just as hungry as it is thirsty is placed precisely midway between a stack of hay and a bucket of water. In that case, there is no reason for the ass to prefer the option of going to the stack and eat the hay over the option of going to the bucket and drink the water, or

vice versa. That is to say, the options are practically speaking on a par. Nevertheless, given a certain will to live, it is rational for the ass to just pick one of these options, in spite of there being no reason to favor the one over the other, because not doing so will only increase the ass's hunger and thirst, eventually leading to a slow and unnecessary death. That is to say, even though Buridan's ass has no reason to prefer the one action over the other, it *does* have a reason to prefer picking one of the actions over suspending action, because picking one of the actions is more in its interest than not doing anything at all.

In section 5.4 I will first add more detail to the concept of rationality in the decision-theoretic context. In brief, the standard idea is that the decision (action, choice) that is rational is the decision that has the most expected utility, given one's overall goals and desires. I will then apply this decision-theoretic framework to the epistemic context, as is already done by, for example, Levi [70], Jeffrey [49], and, more recently, by Pettigrew [84]. The idea is very similar: the doxastic action—to wit, to believe a proposition, to disbelieve it, or to suspend judgment—that is rational is the doxastic action that has the most expected utility with respect to the epistemic goal of attaining correct beliefs and avoiding incorrect beliefs.

This framework enables us to see that, contra White and Feldman, it can also in an epistemic context be rational to just pick a belief state regarding a proposition, instead of suspending judgment, in evidentially symmetrical cases where the evidence supports the one belief state just as well as the other. The reason is the same as before: sometimes picking a belief state out of a number of evidentially equivalent, and so 'equally good', alternatives has more epistemic utility than suspending judgment—that is, is more useful, given the goal of attaining truth and avoiding falsehood.

In section 5.5 I describe in more detail when such arbitrary picking can be more rational than suspending judgment. In short, the idea is that our epistemic goal can be served in two different ways, namely by placing the emphasis on avoiding error, or by giving more weight to the attainment of truth. These different interpretations lead to two different conceptions of rationality respectively, namely a non-permissive one according to which a belief is rational only if there is enough reason to think it is correct, and a more permissive conception under which a belief is rational merely if there is not enough reason to think that it is incorrect. And on the non-permissive conception of rationality, White and Feldman are right, it cannot be rational to adopt or retain a belief state if it is epistemically on a par with an alternative belief state. But on a permissive conception, such a doxastic procedure *can* be rational, in spite of the argumentation from White and Feldman.

Furthermore, in section 5.5.3 I will make three observations as to why a permissive conception of rationality can sometimes be preferred over the non-permissive conception. Most importantly, as also pointed out by various philosophers of science, the reason is that having a belief, even if it is incorrect, can be of use with respect to our epistemic goal—it can function as a steppingstone for future reasoning, and help to maintain diversity of opinion in a community, which can in turn aid epistemic progress (see Kuhn [63], Popper [87], Kitcher [57]).

And finally, in section 5.6 I explain how these findings make the argumentation for the non-permissiveness thesis, as well as the central argument for the conciliatory view, inconclusive, and perhaps even question-begging. For the main result of this chapter is that there is a bona fide permissive conception of rationality available—that is, a permissive conception that can truly serve our epistemic goal. And on this conception, it can be rational to adopt or retain a belief state even when there is no reason to prefer this belief state over some rival alternative. As such, the central premise behind the argumentation for the non-permissiveness thesis and the conciliatory view—namely, that it cannot be rational to opt for a belief state if it is epistemically on a par with some rival belief state—begs the question against our permissive conception of rationality, on which this *can* be rational. At least, the defenders of the conciliatory view will have to put forward further argumentation as to why their non-permissive conception of rationality should be preferred over our permissive alternative.

5.2 THE RESPONSE CLAIM

In this dissertation, we have construed the conciliatory view as making two claims with respect to two different problems of peer disagreement: the arrival claim and the response claim. The arrival claim is that peers cannot rationally arrive at disagreeing beliefs. The response claim is that the rational response to a peer disagreement is to make a conciliatory revision of the disputed belief. In this chapter we will focus solely on the response claim. But before we do this, it is useful to briefly recapitulate some of the steps by which we have arrived at this point in the dissertation.

5.2.1 *Recapitulation*

We have seen that behind the second claim of the conciliatory view are three basic premises, and one hidden background assumption. The background assumption is that the epistemic goal behind rational belief-formation is to attain correct beliefs and to avoid incorrect beliefs, and

that the way to achieve this goal is to form one's beliefs in accordance with one's evidence.

Then, the first premise of the argument is that, in a case of peer disagreement, one of the parties is in error, has formed a belief that is incorrect. In other words, a peer disagreement means that something is wrong. The second premise is that, since the disagreeing parties are each other's peers, there is insufficient reason for each of them to dismiss the disagreement or conclude that the fault must lie with the other party. That is to say, the two disagreeing belief states are epistemically speaking on a par. And the third premise is that, if two such belief states are epistemically on a par, then it cannot be rational to retain one of these belief states. In other words, a peer disagreement means that something must be done. And the conclusion from the conciliatory view is that the rational course of action in cases of peer disagreement is to make a conciliatory revision—that is, suspend judgment.

In chapter 2, we observed that this line of reasoning, as it stands, is not precise enough. In particular, we argued that the validity of the argumentation depends on the sort of disagreement we are talking about, what the exact definition of peerhood is, and how rationality is further understood.

In the chapters 3 and 4 we have investigated the eligible sort of disagreement and definition of peerhood. We did this in light of making the first premise—that a peer disagreement means that something is wrong—more precise. To ensure that something is wrong, we observed, it should first of all not be possible for the disagreeing beliefs of two peers to be both correct.

Thus, in chapter 3 we investigated what needs to be assumed about a peer disagreement to rule out this possibility. Our main conclusion was that the conciliatory view cannot range over peer disagreements that are interpreted as 'subjective' in such a way that the disagreeing beliefs of the two peers are construed as being both correct. Consequently, we argued, the scope of the conciliatory view should be limited to those peer disagreements that the defenders of the conciliatory view are prepared to regard as being 'objective' in such a way that at least one of the disagreeing peers has an incorrect belief.

Still, this does not yet necessarily mean that something must be wrong in a peer disagreement. Because it is possible that, even though only one of them is in fact correct, both peers have rationally arrived at their disagreeing beliefs. This could occur when, beyond their shared total evidence, there are other, extra-evidential, epistemic differences between two peers—for example, when the two peers have a preference for different theoretical virtues. This possibility is particularly present in cases of underdetermination where the shared total evidence of two peers does not decide between two rival hypotheses.

And so, in chapter 4 we investigated what needs to be assumed about the epistemic similarity of disagreeing peers to rule out this possibility. Our main conclusion was that the conciliatory view must take peers to be agents between whom there are no epistemic differences in the epistemic properties that are required to single out a uniquely rational belief state regarding a proposition, given a body of evidence. And we argued that this means that peers must in effect be two identical versions of a single, and particular, epistemic agent.

Given these additional assumptions, the conciliatory view becomes a more and more plausible position. However, these assumptions also have the effect that the conciliatory view has a more and more limited area of application. Because now the conciliatory view is confined to objective disagreements between peers that are virtually identical. But even then, we shall see in this chapter, it is still not necessarily the case that something must be wrong in cases of peer disagreement, or that, as a result, something must be done in order to restore rationality. Because this also depends on how rationality is conceived of. And this brings us to the present stage of the dissertation—namely, an investigation of the conception of rationality that is required for the conciliatory view. This is further explained in the next two sections.

5.2.2 *Toward the response claim*

In this section I explain how the further assumptions from chapters 3 and 4 do go a long way in making the central claim of the conciliatory view hold water—that is, that a conciliatory revision is indeed the only rational response to the disagreement from a peer. To see this, let us shift perspective, and look at a situation in which I am thinking about how to respond to a disagreement from you, my peer. The additional assumptions from chapters 3 and 4 have blocked several recourses that would enable me to rationally retain my belief, and not make a conciliatory revision.

A first recourse is to maintain that our disagreement is subjective, and that our disagreeing beliefs are both actually correct due to some relevant parametric subjective difference between us. For example, I could think on the basis of the details surrounding our disagreement that we should be construed as being actually concerned with different propositions, relative to different conceptual frameworks, and that in this light both our beliefs should be seen as correct. In that case, we argued, it would not be rational to make a conciliatory revision.

However, this recourse is now blocked by the additional assumption from chapter 3, namely that the conciliatory view only ranges over peer disagreements that are objective—that is, peer disagreements that are about a single proposition that has an objective truth-value. With this

assumption in place, it can no longer be rational to retain my belief in the face of your peer disagreement on account of the disagreement being subjective.

A second recourse that could make it possible for me to not follow up on the conciliatory view is to maintain that, even though only one of our disagreeing beliefs is in fact correct, they are equally rational. In chapter 4 we saw how peers can form different rational beliefs on the basis of the same evidence if there is an extra-evidential epistemic difference between them, such as a preference for different theoretical virtues. This could also make it rational for me not to revise my belief, despite your disagreement.

This recourse is now blocked, however, by the further assumption from chapter 4, namely that, in addition to there being no evidential differences between peers, there can also no longer be extra-evidential differences between peers. This means that it is no longer possible for me to rationally retain my belief on the basis of some relevant epistemic difference between us.

And a third recourse could be that, even though only one of our disagreeing beliefs is correct, I have a good reason to think that it is my belief that is correct, and not yours. For example, I could have evidence suggesting that—generally, or in the present case—I am a more reliable thinker than you are, or that my belief is better supported by our evidence than your belief. In that case it could also be rational for me to retain my belief.

However, not only is this recourse blocked by the further assumption from chapter 4—namely, that there can no longer be any relevant epistemic differences between us—it also goes against the customary conception of what a peer disagreement is. In the debate about peer disagreement, it is generally accepted that in a peer disagreement there is, by definition, no good reason to think that it is the other party that is wrong—in other words, if in a disagreement there is reason to think that it is the other party that is wrong, then this disagreement does not count as a peer disagreement.

So the additional assumptions from chapters 3 and 4 have blocked several recourses that would enable me to disregard the conciliatory view in our case of peer disagreement: I cannot retain my belief on the basis of our disagreement being subjective and our disagreeing beliefs being both correct relative to some subjective difference between us, nor on the basis of our disagreeing beliefs being both rational due to some relevant epistemic difference, nor on the basis of some reason to think that my belief is correct rather than yours.

Furthermore, observe that, given these additional assumptions, our peer disagreement amounts to the following situation. I have a certain belief state regarding a proposition, say I believe that proposition to be

true, and you believe this proposition to be false. This proposition has an objective truth-value, so either your belief state or mine is correct. Moreover, there are no relevant differences between us at all, so I have no reason whatsoever to think that my belief state is correct rather than your belief state.

And this brings us to the third premise behind the conciliatory view. This is the premise that if two belief states regarding a proposition, belief and disbelief, are epistemically speaking on a par—so that there is no more reason for the one belief state that it is correct as there is for the other—then it cannot be rational to retain one of these belief states. The aim of this chapter is to further investigate this assumption about rationality.

5.2.3 *A claim about rationality*

Before we turn to this investigation, however, one last remark is in order. Observe that the additional assumptions from chapters 3 and 4 impose serious restrictions on the scope of the conciliatory view. First, the conciliatory view is now confined to only those peer disagreements that are understood to be objective. And second, the conciliatory view is now limited to only those peers between whom there are no epistemic differences whatsoever. This gives the conciliatory view an increasingly restricted area of applicability, and it seems unlikely that such highly idealized peer disagreements occur in the real world at all. Indeed, it looks as if the additional assumptions make peer disagreement a mere theoretical phenomenon, and, by implication, the conciliatory view a position that has at best only a theoretical application.

Perhaps. But this doesn't mean that the conciliatory view is of no value. As we have already noted in chapter 1, the whole problem of peer disagreement can be regarded as a thought experiment, a stress test to study the concept of rationality. We compared it to the method of systematic doubt from Descartes. Even though in real life it is not feasible to doubt everything, the method of systematic doubt can be useful to study our conception of knowledge. In the same way, we can say about peer disagreement that, even if it doesn't actually occur in real life, it can be a useful tool to study our conception of rationality.

In this light, the conciliatory view can be regarded as making a claim about rationality. Namely, that rationality is such that it cannot be rational to retain a belief when confronted with the disagreement from a peer. Given the additional assumptions from the previous chapters, this amounts to the following claim: rationality is such that it cannot be rational to retain a belief state regarding a proposition if this belief state is epistemically speaking completely on a par with an alternative belief state—that is, when these belief states are equally rational in the

sense that there is just as much reason for the one to think that it is correct as there is for the other.

In the next section I explain how this claim, in effect, amounts to the non-permissiveness thesis, and discuss the argumentation as to why this thesis would be true.

5.3 THE NON-PERMISSIVENESS THESIS

The non-permissiveness thesis can be phrased as follows: there cannot be two different equally rational belief states regarding a proposition, given a body of evidence (see White [113, p. 445], White [114, p. 312], Feldman [29, p. 205]). In the previous chapter we have already looked at an argument for a close pendant of this thesis, the uniqueness thesis. This was the argument, recall, that evidence, and evidential support, is such that it makes available only one rational belief state regarding a proposition. And we have seen that substantial further assumptions need to be in place before this line of reasoning indeed holds between two disagreeing peers.

In this chapter we will look at a recently influential argumentation for the non-permissiveness thesis. This argumentation comes in the form of a *reductio* of the *permissiveness* thesis, which is the idea that there *can* be two different equally rational belief states regarding a proposition, given a body of evidence. We will look at two sources for this line of reasoning, namely White [113, 114] and Feldman [29]. Both authors argue that the permissiveness thesis cannot be sustained.

5.3.1 *White's jury case*

White does not state the argument in explicit premises. Instead, he leads the reader to his conclusion by discussing the following scenario. Suppose that I am the member of a jury, and that it is my task to decide whether a defendant, say Smith, is guilty or innocent. In such a case, he says, it cannot be rational to just flip a coin, or take some magical belief-inducing pills, to reach a verdict. Instead, what is rationally required is a careful examination of the evidence. Here is White [114, p. 315]:

Arbitrarily taking a pill [or flipping a coin] while I have no clue as to whether the defendant is guilty gives me only a 50 percent chance of arriving at the correct verdict. If instead I base my belief on the evidence I have a much better chance of getting at the truth.

The next step is to suppose for the sake of argument that the permissiveness thesis is true, and that the present jury example is one such a permissive case, and, moreover, that I am aware of this. In other words,

I know that, given my evidence, it is rational for me to believe that Smith is guilty, but that it is also rational for me to believe that Smith is innocent. Regarding such a case, White [114, p. 315] says:

What reason do I have to form my belief by an examination of the evidence rather than just popping a pill [or flipping a coin]? If either conclusion can be rationally held given the evidence, why not just randomly pick one?

In other words, if the permissiveness thesis is true, then there is no advantage, *qua* pursuing a belief that is correct, in carefully examining the evidence to form a belief over flipping a coin, or taking a belief-inducing pill. But this White finds absurd. It cannot be rational to just pick a belief, or flip a coin, or pop a pill, to arrive at a belief. For this would make the belief arbitrary—that is, there would be no reason to think that the resulting belief is correct and not incorrect (see also White [113, p. 448]). Avoiding such arbitrariness is precisely what constitutes rationality.

From this, White concludes that the permissiveness thesis cannot be true: there cannot be two different but equally rational belief states regarding a proposition, given a body of evidence.

The non-permissiveness thesis has been extensively discussed in the literature. One main line of attack has been to point out that it goes against various well-entrenched epistemological positions (for example, Ballantyne and Coffman [2]), and particularly so in the context of Bayesian epistemology (for example, Douven [19], Meacham [79]). But what has remained underexposed thus far, and what I want to focus on here, is the central assumption behind the argument. Namely, the assumption that a belief that is arbitrarily formed cannot be rational. More specifically, it is the idea, widely accepted in contemporary epistemology, that it cannot be rational to adopt a belief state regarding a proposition if this belief state is epistemically on a par with its rival alternative—that is, if these belief states are equally rational in the sense that there is just as much reason for the one to think that it is correct as there is for the other.

5.3.2 *Feldman's fork in the road*

Before assessing White's argumentation, I want to draw attention to some remarks made by Feldman [29] that are aimed at the same point, but from a different angle. Feldman [29, p. 203] starts out by dissociating belief from action. He gives the following example.

Suppose that we are on our way to some place important and that we come to a fork in the road. Unfortunately, we have no information as to which path leads to the place we want to go. We discuss what

to do, and you choose to go down the left path, and I choose the right one. In that case, our *actions* may be regarded as entirely rational. Since our goal is to arrive at the place we want to go, and we have no further information as to which path is the correct one, it is more in our interest, given our goal to arrive at our destination, to just pick a path, than to not choose any path at all. However, says Feldman [29, p. 203], *believing* that we have chosen the correct path cannot be rational, since we have no further information that could serve as evidence for such a belief—that is, we have no reason to think that such a belief is correct:

Believing differs from acting in a case like this. The reasonable attitude to take toward the proposition that, say, the left path is the correct path is suspension of judgment. Neither belief nor disbelief is supported. Each of us should suspend judgment about which path is best, while picking one since, as we envision the case, not taking either path would be the worst choice of all.

Feldman doesn't further explain how suspension of judgment should be understood in this argument, other than that it is neither belief nor disbelief. But, as we will see, there are different ways in which suspension of judgment can be understood. I come back to this in section 5.5.3.

At any rate, Feldman then goes on to apply this line of reasoning to cases of peer disagreement. As we have already seen, concerning an objective peer disagreement in which the disagreeing beliefs are really epistemically on a par, Feldman [29, p. 212] says:

...I have no basis for thinking that the one making the mistake is him rather than me. And the same is true of him. And in that case, the right thing for both of us to do is to suspend judgment on *p*.

It is telling that Feldman even goes a step further than this. For he also considers the sort of cases of peer disagreement we have been discussing in chapter 4—namely cases in which there *is* some epistemic difference between two disagreeing peers, such that their disagreeing beliefs can be regarded as rational relative to this difference. Feldman [29, p. 205] calls these possible differences “alternative starting points”. But Feldman thinks that these alternative starting points do not help to invalidate the conciliatory view's claim that a conciliatory revision is required. Rather, Feldman [29, p. 206] says that this recourse “just pushes the question back a step”:

Once people have engaged in a full discussion of issues, their different starting points will be apparent. And then those

claims will themselves be open for discussion and evaluation. ...Once you see that there are alternative starting points, you need a reason to prefer one over the other. There may be practical benefit to picking one. But it does not yield rational belief. The starting points are simply analogues of the two forks in the road, in the example considered earlier.

We have seen in chapter 4 that when there is a relevant epistemic difference between two peers—in the words of Feldman, when they operate from alternative starting points—this can make it rational for two peers to *arrive at* disagreeing beliefs. And this contradicted the arrival claim of the conciliatory view, namely that it cannot be rational for two peers to arrive at disagreeing beliefs. However, as Feldman now rightly points out, and as we also already noted in chapter 4, this does not yet contradict the *response* claim of the conciliatory view, namely that peers must make a conciliatory revision of these beliefs, even if they were both rationally arrived at. Because, Feldman argues, when one becomes aware of such alternative starting points from which one can arrive at different rational belief states regarding some proposition, adopting or retaining one of these belief states can be rational only if one has a reason to prefer the starting point leading to this belief state over the alternative starting point leading to the other belief state.

For example, suppose that the one peer pursues the theoretical virtue of simplicity but the other peer prefers the virtue of generality. And suppose that, given these alternative starting points, the peers form disagreeing beliefs on the basis of the same evidence. Then, according to Feldman, these peers can only rationally retain their beliefs if they have a reason to prefer their own starting point over the starting point of their opponent. And absent such a favoring reason, which Feldman thinks is the case in peer disagreements, a conciliatory revision is still the only rational course of action. So even if there is some relevant epistemic difference between two disagreeing peers, Feldman thinks that a conciliatory revision is still the most rational response to such a peer disagreement.

What we are going to see in this chapter, however, is that there is an alternative conception of rationality available under which a belief can be rational even if there is no reason to prefer this belief over some disagreeing alternative belief, or indeed one's own starting point over some alternative starting point.

5.3.3 *Ultimate peer disagreement*

In sum, White [113, 114] and Feldman [29] think that it cannot be rational to adopt a belief state regarding a proposition when it is epistemically on a par with another belief state, that is, when the evidence

supports the one just as well as the other such that there is no reason to think the one more likely to be correct than the other. For White [113, 114], this is because the resulting belief state would be arbitrary, and such a belief cannot be rational. For Feldman [29], this is because, in order for a belief state to be rational, one needs a reason to think that this belief state is correct rather than some alternative belief state.

In the next section we will challenge this line of reasoning. We will make visible that it can be rational for an agent to adopt a belief state, even if this belief state is epistemically on a par with another belief state. But before we do this, I would like to make one brief observation, namely that with our approach we have now arrived at the ultimate form of peer disagreement.

To see this, note that we will be looking at a single agent who is considering two belief states, belief and disbelief, regarding a proposition that is either true or false, and that we will assume these belief states to be epistemically on a par, or evidentially symmetrical—the agent’s evidence supports the one belief state just as well as the other. This is the ultimate form of peer disagreement because, first, one of these belief states is guaranteed to be incorrect, and second, there are no possible epistemic differences whatsoever left now that we are looking at a single agent.

In other words, we have conceded a great deal to the proponents of the conciliatory view. That is, we have completely fortified the first premise of their argument—namely, that a peer disagreement means that something is wrong—as well as the second premise, namely that the disagreeing belief states of two peers are epistemically on a par. With this, we have created a clear view on the only premise that is left open for discussion, which is the conciliatory view’s conception of rationality—to wit, that rationality is such that it does not permit adopting or retaining a belief state if it is epistemically on a par with an alternative belief state. In the next section we will start to challenge this conception.

5.4 RATIONALITY AND UTILITY

Interestingly, the fork in the road example from Feldman [29] opens up an alternative way of looking at rationality which precisely sidesteps Feldman’s own objections to the permissiveness thesis, as well as those of White [113, 114]. This alternative stems from the pragmatic context of decision theory, but it can also be applied to our present epistemic context (see, for example, Pettigrew [84, 85]). In a nutshell, it is the idea that, when there are two equally good options, so that there is no reason to prefer the one over the other, it can nevertheless be rational to opt for one of these options if doing so is more in one’s interest than not

doing anything at all—this is in accordance with what Feldman says regarding his fork in the road example. This idea was perhaps most forcefully introduced by Morgenbesser and Ullmann-Margalit [81], and it is useful to first look at an example from that paper.

Suppose that I want to buy some soup, more specifically, I want to buy a can of Campbell's tomato soup. So I go to the soup store, and see that there are only two cans of Campbell's tomato soup left. The two cans are right next to each other on the shelf in front of me, and they are indistinguishable, at least with regard to my present purposes, which is to buy a good can of Campbell's tomato soup. And let us say that I have three options: take the right can, take the left can, or suspend action and not take a can at all.

About such a case, Morgenbesser and Ullmann-Margalit [81] point out that, although there is no reason to prefer choosing the one can of soup over choosing the other can of soup, there *is* a reason to prefer just randomly picking one of the cans over suspending action and not choosing either can. The reason is that, decision-theoretically speaking, randomly picking one of the cans has a higher expected utility, and is thus more rational, than suspending.

In decision theory, we distinguish acts (choices, decisions), possible states of the world, and outcomes of acts at possible states of the world. And then, the rationality of an act is determined by the amount of *utility* the outcome of this act has at a possible state of the world—that is, by how much the result of this choice is valued given the way the world turns out to be.

To give the textbook example, suppose that I want to go on a hike, and that I face a choice between two possible acts, namely to bring an umbrella with me or to leave it at home. Furthermore, the relevant possible states of the world are that it will rain on my hike and that it will not rain. Now, for me the relevant outcomes of the two possible acts at these possible states are fourfold. First, if it rains and I brought my umbrella, the outcome will be that I remain dry, but that I will have to carry my umbrella all the way. Second, if it rains and I did not bring my umbrella, I will get wet, but I am not hampered by an umbrella during my hike. Third, if it does not rain and I brought my umbrella, I will remain dry, but I am hampered by my umbrella. Fourth, if it does not rain and I did not bring my umbrella, I will remain dry and I can hike freely.

From this, I can determine which act is rational for me, given how much I value each of these outcomes respectively, and how likely the corresponding states of the world are. If it is very likely that it is going to be sunny during my hike, then the rational thing for me to do is to leave my umbrella at home, at least if I think being free from an umbrella is worth the small risk that it is going to rain anyway. But

if it is very likely that it is going to rain, then it is rational for my to bring my umbrella, at least if staying dry is worth the nuisance of carrying an umbrella all the way. And if it is not so clear whether it is going to rain, then, in order to make a rational decision, I will have to evaluate how much I value not getting wet against how much I value not being hampered by an umbrella during my hike.

There is a lot more detail that can be added to this basic decision-theoretic framework. But we don't need too many details to see that, in the Campbell's tomato soup example, randomly picking one of the cans has more expected utility, and is thus more rational, given my goal of getting a can of Campbell's tomato soup, than suspending action. Consider the three possible acts that I can choose from—taking the one can, taking the other can, and taking neither can. Given my goal, it is more in my interest, and so has a higher utility, to just make an arbitrary choice between the first two options than to choose the third option of suspending, because I may expect the outcome of the arbitrary choice to be for me to end up with a can of Campbell's tomato soup, whereas the third option will leave me empty handed.

There are many other such examples available. Suppose there are two boxes in front of me, one of them containing €1000 and the other nothing, and there is no way for me to tell which one is which. In that case, assuming that money has a certain value for me, randomly picking a box would be the most rational option for me, even though doing so will be arbitrary since I have no reason to prefer choosing the one box over the other. And other examples are of course Feldman's fork in the road from the previous section, and the story of Buridan's ass we saw in the introduction.

In any case, the point is that in a decision theoretic framework an act (decision, choice) that is arbitrary need not be an act that is not rational, because arbitrarily picking an action can sometimes have more expected utility than suspending action. In the next section, I apply this decision theoretic framework to our epistemic context of rational belief-formation. And I will argue against Feldman and White that, in this regard, arbitrary belief-formations can sometimes be considered as rational, much like arbitrary actions.

5.4.1 *Epistemic utility*

We are by no means the first to apply a decision-theoretic framework to epistemology (see, for example, Levi [70], Jeffrey [49], Pettigrew [84], Pettigrew [85]). Nor is the application very complicated. Instead of plain acts, we look at the *doxastic* acts of belief-formations, which in our context of full beliefs amounts to the three options of believing a proposition, disbelieving it, or suspending judgment. And the relevant

possible states of the world are the state in which this proposition is true and the state in which it is false. And the relevant outcomes of the three doxastic acts at these states of the world are, first, having a correct belief in case the proposition is true and the proposition is believed or the proposition is false and the proposition is disbelieved, second, having an incorrect belief when the believed proposition is false or the disbelieved proposition is true, and third, having neither a correct nor an incorrect belief in case judgment is suspended. And finally, we substitute *epistemic utility* for utility, which is a measure of how much these outcomes are valued with respect to certain epistemic goals. This way, we can determine the rationality of a belief-formation by evaluating the epistemic utility that the outcome of this belief-formation has at a possible state of the world together with an evaluation of the probability of this state of the world.

Furthermore, note that we have assumed from the beginning that the epistemic goal behind rational belief-formation is to attain correct beliefs and avoid incorrect ones. What this means is that we can determine the rationality of a belief-formation by looking at the amount of epistemic utility the expected outcome of this action has—that is, an estimation of whether the resulting belief state is going to be correct, or incorrect—with respect to this epistemic goal. On this picture, we can say that the outcome of having a correct belief has high epistemic utility; and the outcome of having an incorrect belief has low epistemic utility; and the outcome of suspending judgment has a utility measure that lies somewhere in between, since, presumably, this outcome is not as desirable as having a correct belief, but it is also not as undesirable as having an incorrect belief (see Heesen and Van der Kolk [45]).

In practice this works as follows. Suppose that I am evaluating my evidence in order to find out what my belief state should be regarding some target proposition—say, that it is going to rain tomorrow. Given our setup, I have three doxastic actions available. Either I can believe this proposition, or disbelieve it, or suspend judgment. And there are two relevant possible states of the world, namely one in which the proposition is true and it rains tomorrow, and one in which it is false and it does not rain tomorrow, and these possible states of the world will result in a belief or disbelief being correct or incorrect. Now, given my evidence, I can make an estimation of how likely it is that it is going to rain tomorrow. For example, suppose that all the weather reports I have consulted reliably indicate that it is going to be a clear and sunny day tomorrow, and that this makes my estimated probability that it is going to rain tomorrow correspondingly low. In that case, given that it is my goal to attain correct beliefs and avoid incorrect beliefs, the doxastic act that has the most expected epistemic utility is to disbelieve the proposition that it is going to rain tomorrow—and, accordingly,

the doxastic act of believing this proposition has the least expected epistemic utility, and suspending judgment has a utility measure that lies somewhere in between.

5.4.2 *Actions in peer disagreements*

Likewise, the framework can be applied to cases of peer disagreement. Suppose that I believe a certain proposition to be true, and that you, my peer, believe this proposition to be false, and that I am thinking about what my reaction should be to this disagreement. There are, relevantly, two doxastic acts I can choose from: I can stick to my guns and retain my belief, or I can make a conciliatory revision and suspend judgment. And there are two possible states of the world, namely one in which the proposition I believe is false, making my belief incorrect and your belief correct, and one in which the proposition is true, which makes my belief correct and yours incorrect.

Now, given my total evidence, I can make an estimation of the respective probabilities of these two possible states of the world. To this end, I should presumably take into account the original evidence on which I based my initial belief, but also the new evidence against this belief that your disagreement presents. What this comes down to in our peer disagreement—at least given the way that peer disagreements are typically construed—is that I should think that it is just as likely that the proposition is false, which would result in your belief being correct, as that the proposition is true, in which case my belief would be correct (see also Elga [23]).

And what this means is that which of the available doxastic acts—retaining or suspending—has the most expected epistemic utility, and is therefore the most rational, depends entirely on how the epistemic utility is distributed over the possible outcomes of these acts. That is to say, it depends on how the outcome of retaining my belief and it ending up being correct is valued, how the outcome of retaining the belief and it ending up being incorrect is valued, and how the outcome of suspending judgment and ending up with no belief at all is valued (for a particular formalization of this framework, see Heesen and Van der Kolk [45]). This is further explained in the next section.

However, before we are going to apply this decision-theoretic framework to the issue of permissiveness and arbitrary belief-formations, I want to briefly address a possible objection to such an application. For an objection might be that belief-formations—or reactions to peer disagreements—should not be treated as actions, because, unlike actions, belief-formations are involuntary. We don't have control over our belief-formations. For that reason, it might be thought that normative ramifications of a decision-theoretic framework do not carry over to the

context of epistemology. To answer this objection, I want to borrow a reply from Pettigrew [84, p. 5].

When we consider a normative theory like decision theory, we can distinguish two uses. It has a *prescriptive* use, which is to tell an agent what the rational thing is to do, given the agent's overall situation. Regarding a peer disagreement, this would amount to a prescription of what the rational response is in a case of peer disagreement. And it has an *evaluative* use, which is to assess whether a certain act of an agent was rational, given the agent's overall situation. Regarding a peer disagreement, this would be an evaluation of whether the response of an agent to a peer disagreement—be it retaining or suspending—was rational for this agent. In this chapter, we will work with the evaluative use of the decision theoretic framework for rational belief. And for this purpose it is immaterial whether an agent has control over her belief-formations or not.

That is to say, in this chapter we are interested in the notion of rationality to which the conciliatory view is committed, and the notions of rationality it must exclude. More precisely, we are investigating under which notion of rationality a conciliatory revision is indeed a rational response to the disagreement from a peer, and whether there are other notions of rationality under which the alternative response of retaining one's belief can be considered rational. For this purpose, it doesn't matter whether the response was arrived at by free will, or whether this response was involuntary. Instead, what we care about is whether this response—be it voluntary or involuntary—can be considered rational, given an agent's overall epistemic situation.

5.5 THE PERMISSIVE ALTERNATIVE

In this section I will give an account of how a belief-formation can be regarded as rational, even though this belief formation is, contra White [113, 114], arbitrary, and contra Feldman [29], there is no reason to prefer this belief-formation over an alternative belief-formation. The motivation for regarding such a belief-formation as rational is that, in spite of being arbitrary and there being no favoring reason for it, this belief-formation has more expected epistemic utility than suspending judgment.

5.5.1 *Weighing the epistemic goal*

We have said that the epistemic goal relative to which we evaluate the rationality of belief-formations is the goal of attaining correct beliefs and avoiding incorrect beliefs. And so far we have not added further detail to this epistemic goal. However, it is well-known that this desir-

atum can pull in opposite directions. This was already pointed out by William James [48, p. 18]:

Believe truth! Shun error!—these, we see, are two materially different laws; and by choosing between them we may end, coloring differently our whole intellectual life. We may regard the chase for truth as paramount, and the avoidance of error as secondary; or we may, on the other hand, treat the avoidance of error as more imperative, and let truth take its chance.

In other words, there are different ways in which we can interpret our epistemic goal (see also Kelly [53]). On the one hand, we can value the avoidance of incorrect beliefs more highly than we value attaining correct beliefs—that is, we want to minimize the number of incorrect beliefs more than we want to maximize the number of correct beliefs. In that case, we should be relatively cautious, or risk-averse, in forming our beliefs, because our primary objective is to avoid forming a belief that is incorrect. That is to say, before we form a belief, we should first acquire sufficient evidence for this belief so as to ensure that it is not incorrect. Consequently, the number of beliefs that are rationally permissible will be relatively small, since the evidential threshold for rational belief is relatively high. And although this may minimize the amount of incorrect beliefs, it comes at the cost of missing out on potentially correct beliefs. Furthermore, observe that on this interpretation the option of suspending judgment is a relatively attractive one; as James [48, p. 18] put it: “Better go without belief forever than believe a lie!”

On the other hand, we can also place the emphasis on attaining correct beliefs, and less so on avoiding incorrect beliefs—that is, value maximizing correct beliefs higher than minimizing incorrect beliefs. In that case, we should be more audacious, or risk-seeking, in forming our beliefs, because we don’t want to miss out on a potentially correct belief. What this means is that the evidential threshold for rational belief should be set lower, resulting in a larger number of beliefs that are rationally permissible. However, although this strategy may maximize the number of correct beliefs, it runs the risk of the occasional incorrect belief. Observe, moreover, that on this interpretation the option of suspending judgment is less attractive, as it comes with the “risk of losing the truth” (James [48, p. 11]).

A related way of putting the difference between these alternative interpretations of rationality is through a distinction made by Van Fraassen [108] between a Prussian and an English conception of rationality. The distinction is based on a, supposedly historical, difference between the Prussian and the English interpretation of law: “In the

former, everything is forbidden which is not explicitly permitted, and in the latter, everything is permitted that is not explicitly forbidden.” (Van Fraassen [108, p. 171]). Applying this to rationality and evidential reasoning, we can say that on a Prussian conception of rationality a belief is not rational except when there is enough evidence for it, whereas on an English conception of rationality a belief is rational so long as there is not enough evidence against it. Observe that the Prussian conception resembles the first interpretation of minimizing the number of correct beliefs, while the English conception is more akin to the second interpretation of maximizing correct beliefs. Furthermore, note that the former parallel the permissive conception of rationality that White and Feldman are arguing against, whereas latter are similar to the non-permissive conception that they promote.

To conclude, even though we have assumed a single epistemic goal from the beginning, there are different ways in which this epistemic goal can be further specified (for a more detailed formalization of this, see also Pettigrew [85]). What are the consequences of this for the issue of permissiveness—more specifically, for the issue of arbitrary beliefs as irrational beliefs—and peer disagreement?

5.5.2 *Rationality in peer disagreements*

Recall that at the end of section 4 we construed a peer disagreement—in our ultimate form, namely as two exclusive belief states regarding a proposition, belief and disbelief, that are epistemically completely on a par—as follows: I should think that the state of the world in which the proposition is true just as likely as the state of the world in which the proposition is false. In other words, I have just as much reason to think that, regarding this proposition, the state of belief is correct as that the state of disbelief is correct.

Furthermore, we noted that which of the available doxastic actions in such a peer disagreement has the most expected epistemic utility, and is therefore the most rational, entirely depends on how epistemic utility is distributed over the possible outcomes of these actions—that is, a correct belief, an incorrect belief, or no belief. And now, with the foregoing different interpretations of the epistemic goal, we can see that there can be different epistemic utility distributions over these outcomes, resulting in different doxastic actions that count as the most rational in cases of peer disagreement.

To see this, reconsider our ultimate form of peer disagreement: I have evaluated the evidence regarding some proposition, and based on this evidence—which includes your disagreement—my estimation is that it is just as likely that the proposition is true as that it is false. In other words, we are considering a situation of complete evidential symmetry

much like the ones that White and Feldman are talking about: I have just as much reason to think that the proposition is true as I have reason to think that the proposition is false. Which belief state is rational for me to adopt regarding the proposition: belief, disbelief, or suspension of judgment? That is, which of these doxastic acts has the most expected epistemic utility?

On the first interpretation of the epistemic goal, call it the *non-permissive* interpretation, the primary objective is to minimize the number of incorrect beliefs. Accordingly, in this case, the belief state of believing the proposition and the belief state of disbelieving the proposition do not have much expected epistemic utility. After all, since I find it just as likely that the proposition will turn out to be true as that it is going to be false, I should think these belief states come with a fifty percent chance of being incorrect. And these odds are not good enough if the goal is to minimize the number of incorrect beliefs. In this case, the belief state of suspension of judgment has more expected epistemic utility, since this will guarantee that I don't end up with an incorrect belief. In other words, on this non-permissive interpretation of rationality, a conciliatory revision is the most rational response to the disagreement from a peer.

On the second interpretation, however, which we may call the *permissive* interpretation, the primary objective is to maximize the number of correct beliefs. And on this interpretation, suspension of judgment has less epistemic utility, because, although it makes sure that I will not have an incorrect belief, it also makes sure that I will not have a correct belief. On the other hand, the belief states of believing the proposition and disbelieving it have more expected epistemic utility, because, given my evaluations, they come with a fifty percent chance of being correct. And these odds may be regarded as good enough if the goal is to maximize the number of correct beliefs. In other words, on this permissive interpretation of rationality, making a conciliatory revision is *not* the most rational response to the disagreement from a peer. Instead, retaining my belief state is the more rational course of action on this interpretation.

Furthermore, and importantly, observe that, on the latter permissive interpretation, the options of believing and of disbelieving the proposition have the same expected epistemic utility, since I think that the chances of the proposition being true or false are fifty-fifty. In this sense, a choice for the one belief state rather than the other is arbitrary, since there is epistemically speaking no reason to prefer the one over the other. However, picking one of these belief states is nevertheless the most rational option for me, because—given my goal of maximizing the number of correct beliefs—the expected epistemic utility of either

of these belief states is higher than the expected epistemic utility of suspending judgment.

So, what this means is that we have countered the argumentation from White [113, 114] and Feldman [29] against a permissive conception of rationality. On such a conception, there can be two equally rational but disagreeing belief states regarding a proposition, given a body of evidence. The argument from White against such permissiveness was that it would allow for arbitrary belief-formations. He argued that, since the disagreeing belief states would be equally rational, or equally likely to be correct, one could just as well flip a coin, or pop a pill, to arrive at a rational belief. But this, according to White, would be arbitrary and cannot be a rational way to arrive at a belief. However, what the above analysis shows us is that, on a certain interpretation of the epistemic goal—when the primary objective is to maximize correct beliefs—it *can* be rational to arbitrarily pick one of two equally rational beliefs, even if this would be done by flipping a coin, or popping a pill. The reason for this is that, if the goal is to maximize correct beliefs, the outcome of arbitrary picking has more expected epistemic utility than suspending judgment and not choosing a belief at all.

The argument from Feldman against the permissive conception of rationality was that, in order for a belief state to be rational, one always needs a reason to prefer this belief state over some alternative belief state. However, when two belief states are equally rational, or equally likely to be correct, there is no reason to prefer the one belief state over the other belief state. Therefore, Feldman concluded, it cannot be rational to adopt or retain a belief state if this belief state is just as rational as some alternative belief state. In this argumentation, Feldman dissociated the epistemic context of belief-formations from the pragmatic context of actions, because, he submitted, in the pragmatic context it *can* be rational to pick some action even if there is no reason to prefer this action over some alternative action. However, we have seen that the epistemic context and the pragmatic context need not differ in this respect. That is, just like in Feldman's own fork in the road example, we saw that when two belief states regarding a proposition are equally rational in the sense of being equally likely to be correct so that there is no reason to prefer the one over the other, it can be rational to arbitrarily pick one of these belief states. Again, the reason is that, when the epistemic goal is understood primarily to be to maximize correct beliefs, then arbitrarily picking one of two equally rational belief states has more expected epistemic utility than suspending judgment.

5.5.3 *Truth in the long run*

We have seen that, whereas on a non-permissive interpretation of the epistemic goal a conciliatory revision is the rational response to the disagreement from a peer, on a permissive interpretation it is rational to retain the disputed belief state. However, one may ask, is there a good reason for this permissive interpretation? Shouldn't perhaps the non-permissive interpretation be preferred? In answer to this question, I would like to make three observations.

The first observation is that the non-permissive interpretation of the epistemic goal amounts to a rather stringent, restrictive conception of rationality. If the primary objective is to minimize the number of incorrect beliefs, then the evidential threshold for rational belief will be relatively high—for a belief to be rational, there should be enough reason to think that it is not incorrect. This means that the number of beliefs that are rationally permissible will be relatively low. For instance, all beliefs that are subject to underdetermination—that is, the beliefs for which the evidence does not decide between this belief and some rival alternative—cannot count as rational beliefs. For example, the everyday belief that there is an external world, or that other people have minds, or that a certain event causes another event, are all not rationally permissible, because these propositions are all evidentially indistinguishable from their skeptical alternatives—to wit, that we are brains in vats, that other people are zombies, and that events merely occur in constant conjunction. Given our evidence alone, there is not enough reason to think that these everyday beliefs are correct, and so, on the non-permissive interpretation, these beliefs cannot be rational. However, on the permissive conception of rationality, these beliefs *can* qualify as rational, because, on this conception, for a belief to be rational it merely needs to be the case that there is not enough reason to think it is incorrect.

But this may not be a very persuasive observation for the proponent of non-permissivism. For perhaps the proponent does not consider it a problem if only very few beliefs are rationally permissible. This brings us to the second observation.

The second observation is that having very few beliefs can impede fruitful inquiry, and make it more difficult to attain the epistemic goal. That is to say, having a larger number of beliefs, even if some of them are incorrect, can help us to reach truth in the long run. The richer an inventory of beliefs an agent has to her disposal, we could say, the more tools this agent has to work her way towards the truth—provided that this inventory of beliefs is not wholesale incorrect, of course. And in this respect, it can sometimes be worthwhile to adopt or retain a belief state regarding a proposition even if there is not enough reason

to think that it is correct. Because such a belief state can function as a steppingstone in the path of inquiry—a working hypothesis that can be used to generate more evidence, and that can guide further investigation, in the way towards the truth.

Let me give an example to illustrate how this works. Suppose that I am a detective investigating whether some proposition is true, say, that the butler was murdered by his wife. And suppose that I believe that the butler's wife is lying about her alibi, but that I don't have enough evidence to confirm this—this belief state is currently underdetermined by my evidence. In that case, I could of course suspend judgment. But this option comes with the drawback that it leaves me with nothing to work with regarding the wife's alibi—I no longer believe this alibi to be false, but I also don't believe that it is true. If instead I retain my initial belief, I at least have a steppingstone on the basis of which I can devise further research, and which can downstream result in new evidence that can resolve the present evidential underdetermination. That is to say, I can, in a wholly Popperian spirit, rely in my belief as a falsifiable hypothesis, which can serve as a premise for future tests and evidential reasoning, until further evidence can eventually confirm or disconfirm this hypothesis. Suspension of judgment would deprive me of such a steppingstone.

Here is another example to press the point. Suppose that I have two different theories about what might have happened to the butler. The first theory is that he was murdered by his wife. The other theory is that he was murdered by his employer. And suppose that my present evidence does not decisively favor the one theory over the other. In that case, I could act in accordance with the non-permissive conception of rationality and suspend judgment. But then, we can ask, how does this recourse serve my goal of attaining a correct belief about what happened to the butler? If I want to find out what happened, it seems, I need to conduct further investigation. But how to devise such an investigation if I have suspended judgment about my two working theories? Where to start, what path to follow, if I have no beliefs, no theory, to guide me? Much like Buridan's ass, it seems that my goal of attaining correct beliefs about the matter would be served by me just picking a theory as a steppingstone—however arbitrary it may be—and work my way from there. For example, I could pick as a starting point the theory that the butler was murdered by his wife, and continue the investigation from this angle, and seek the evidence needed to decisively confirm or disconfirm this theory.

In any case, the point is that the goal of attaining correct beliefs is sometimes better served by continuing to rely on one of various underdetermined alternatives—by retaining or adopting a belief state even if there is not enough evidence to think that it is correct—than by sus-

pending judgment about the matter. It lies beyond the scope of this dissertation to develop a fully worked out measure with which it can be determined exactly when and under what conditions it is better to adopt or retain a belief state than to suspend judgment. But I think it is intuitive enough that sometimes having a belief can be of more epistemic service to an agent than suspending judgment, even when there is insufficient reason to think that this belief is correct.

And it is at this point that we can learn something about how to understand the notion of suspension of judgment behind the conciliatory view (see our remark on this in section 5.3.2). Because the defenders of the conciliatory view may have the following objection to the above line of reasoning. They could maintain that suspension of judgment about some hypothesis does not rule out the possibility of using this hypothesis as a steppingstone—one can suspend judgment regarding some proposition, and still use it as a premise in future reasoning. In other words, suspension of judgment, on this account, is to abstain from a state of belief or disbelief, but to keep the right to accept this proposition for the sake of argument, or to rely on it as a steppingstone to advance future inquiry.

If this is how the idea of suspending judgment is to be understood, then my foregoing line of reasoning does indeed not weigh heavily against the non-permissiveness thesis or the conciliatory view. But in that case we have at least learned that the conciliatory view has a more qualified reading of what it is to make a conciliatory revision—understood as suspension of judgment—in cases of peer disagreement. When the conciliatory view says that suspension of judgment is the rational response in the face of peer disagreement, what they mean is that it is no longer allowed to believe or disbelieve the proposition under discussion, but it is still permitted to use this proposition as a premise in further reasoning.

However, there is another consideration which brings to the fore that the epistemic goal can be served, not only by just accepting an under-determined proposition for the sake of further reasoning, but by really believing this proposition to be true, despite the fact that there is not enough evidence to support this.

Because the third observation, shared by numerous philosophers of science, is that it can be worthwhile—in the interest of attaining correct beliefs in the long run—to maintain diversity of opinion in a community of agents, so long as the evidence does not conclusively favor the one theory over the other (see also Kelp and Douven [55]).

Kuhn [63, p. 262], for example, says that “variability of judgment may ... be essential to scientific advance”. And the reason for this is that such diversity of opinion stimulates the divided members of this community to test and corroborate their respective theories, which can

result in new insights that could lead to a definitive consensus. In other words, when the agents in a scientific community really believe different theories to be true, even though these theories are underdetermined by the available evidence, this is thought to create a fertile breeding ground for a more decisively supported theory—the community will challenge and corroborate the available theories until a new consensus emerges. This community would not have been such a fertile breeding ground for scientific advance if the distribution of opinion was uniform—for example, if all members would have followed the conciliatory view's advice and had suspended judgment.

Along similar lines, Popper [87, p. 87] says:

A limited amount of dogmatism is necessary for progress. Without a serious struggle for survival in which the old theories are tenaciously defended, none of the competing theories can show their mettle.

Also noteworthy is Kitcher [57], who has a more detailed account of how diversity of opinion can be epistemically advantageous for a community of agents, if the evidence does not determine which of the competing theories is correct. He uses scientific revolutions as cases in point. In the period when an old theory is gradually replaced by a new one, Kitcher argues, it is not desirable if all the scientists in the community were to suddenly jump to the new consensus. This would, for instance, hinder an initial critical examination of the new theory, and the preservation of valuable elements of the old theory. Instead, the epistemic goal of the community is better served if some scientists would stick to and defend the old theory, while other scientists challenge this old theory and aim to corroborate the new one. As Kitcher [57, p. 5] puts it:

Does this scenario of initially uniform opinion, sudden jumping of ship, and new consensus signal the rational growth of scientific knowledge? If you had been a philosopher-monarch, concerned to have your scientist-subjects distribute their efforts so as to promote the eventual attainment of truth by the community, you would (rightly) have dismissed this assignment of resources (the scientists themselves) as a bad bargain. With the evidential balance between the two theories so delicate [in times of scientific revolution], you would have preferred that some scientists were not quite so clear-headed in perceiving the merits of the theories, so that the time of uniform decision was postponed.

I want to emphasize that these observations are meant for situations of underdetermination, not for situations in which the correct theory, or belief state, can be determined from the evidence. For example, in the

restaurant case of peer disagreement, in which you and I disagree about the division of the bill, it doesn't make much sense for us to maintain diversity of opinion to attain truth in the long run, or for me to retain my belief to use as a stepping stone for future reasoning. Rather, we should just check the evidence, and figure out the right division. But in cases of underdetermination it doesn't help to re-check the evidence, because the evidence does not determine the correct belief state. And it is precisely in these kinds of cases that epistemic progress can be made by maintaining diversity of opinion, or by retaining a belief as a stepping stone.

So, far from saying that the permissive conception of rationality should always be preferred over the non-permissive conception, the main point here is that in some cases the permissive conception of rationality serves our epistemic goals better than the non-permissive conception. More specifically, I argue that it can be useful to adopt or retain a belief state in cases where the evidence does not decide between different belief states—that is, when these are epistemically on a par. The reason is that it can create a steppingstone, or preserve diversity of opinion, which can be used in the process of finding out what a more definitive belief state should be.

In other words, it can sometimes be worthwhile with respect to our epistemic goals to adopt or retain a belief state, even when it is, *contra* White [113, 114], arbitrary; or when there is, *contra* Feldman [29], no reason to prefer this belief state over some alternative belief state; or when it is, *contra* the conciliatory view, disputed by one of our peers.

5.6 BEGGING THE QUESTION

In section 5.2.3 we said that the additional assumptions that are required to validate the conciliatory view's main claims, made the scope of the conciliatory view increasingly restricted. But we also said that this does not have to mean that the conciliatory view is of no value. The reason for this is that—just like the problem of peer disagreement can be seen as a thought experiment to study the concept of rationality—the conciliatory view can be seen as making a claim about rationality. And the claim is that rationality is such that it cannot be rational to retain a belief in the face of peer disagreement—that is, in our context, rationality is such that it cannot be rational to adopt, or retain, a belief state if it is epistemically on a par with an alternative belief state. And we have looked at an influential line of argumentation for this claim—namely, the argumentation from White [113, 114] and Feldman [29] for the non-permissiveness thesis.

In light of the observations made in this chapter, however, we can see that this line of argumentation is inconclusive, and even question-

begging. For we have seen how the epistemic goal can be interpreted in different ways, and how these different interpretations can lead to different conceptions of rationality. On a non-permissive conception, the primary objective is to minimize incorrect beliefs, which makes rationality such that for a belief to count as rational there should be sufficient reason to think that this belief is correct. This conception accords with the conciliatory view, and the argumentation from White and Feldman for the non-permissiveness thesis.

However, we have also seen that there is another interpretation of the epistemic goal available, which harbors a more permissive conception of rationality. On this picture, the primary objective is to maximize correct beliefs, which makes rationality such that a belief can count as rational so long as there is insufficient reason to think that it is not correct. And on this conception of rationality, a belief state regarding a proposition can be rational even if it is, *contra* White [113, 114] arbitrarily picked from among equally rational alternatives, or if there is, *contra* Feldman [29], no reason to prefer this belief state over an equally rational alternative. Furthermore, this conception of rationality undermines the conciliatory view: if rationality is understood permissively, it can be rational to retain a belief state in the face of peer disagreement—that is, if it is epistemically on a par with an alternative belief state.

Of course, it is not very surprising that on a permissive conception of rationality it is possible for peers to rationally disagree. But there is a more interesting corollary result behind this. Because in light of the findings in this chapter, we can see that the argumentation to establish the contrary—namely, that rational peer disagreement is not possible—has become inconclusive, and even question-begging. To see this more clearly, let us take a step back and recapitulate where we are in the discussion.

Recall from section 5.1 that the debate about peer disagreement can be seen as a debate that is effectively about rationality. It revolves around the question whether rationality is such that it can allow for peers to have disagreeing beliefs. In that light, the conciliatory view can be seen as making a claim about rationality, namely that rationality is not permissive this way. Moreover, this claim can be made more precise given the additional assumptions from chapters 3 and 4—these are the assumptions, first, that the peer disagreements appertaining to the conciliatory view are objective disagreements, and second, that peer disagreements are disagreements between agents that are epistemically completely similar. In that light, we said in section 5.2.3, the claim of the conciliatory view amounts to the following: rationality is such that it does not permit retaining a belief state regarding a proposition if this belief state is epistemically speaking completely on a par with an alternative belief state.

In this chapter, we have looked at the argumentation for this claim. White [113, 114] argued that rationality does not permit this because the resulting belief state would be arbitrary. And Feldman [29] argued that rationality is not permissive this way because the resulting belief state would lack sufficient evidence to think it is correct. However, in this chapter we have seen that there is a viable permissive conception of rationality available, under which an arbitrary belief state, or one that lacks sufficient evidence, *can* be rational. And what this means is that the argumentation from White [113, 114] and Feldman [29] begs the question against our permissive conception of rationality. To make a valid, more convincing case, they will have to put forward a further argument as to why their non-permissive conception of rationality is to be preferred over our permissive alternative.

5.7 CONCLUSION

In this chapter we have investigated the conception of rationality that is required for the conciliatory view. To maintain their central claim that it cannot be rational to retain one's belief in the face of peer disagreement, we argued, the conciliatory view is committed to a non-permissive conception of rationality: rationality is such that it does not permit adopting or retaining a belief state when this belief state is epistemically on a par with an alternative belief state.

We then looked at some recently influential argumentation for such a conception of rationality. The argument from White [113, 114] was that rationality must be non-permissive because otherwise it would allow for arbitrary belief-formations. And the argument from Feldman [29] was that, for a belief-formation to be rational, one should always have a reason to think that this belief state is correct rather than some alternative belief state.

However, we then worked out a permissive conception of rationality in light of which this argumentation is inconclusive, and even question-begging. We derived our permissive conception of rationality from a particular interpretation of the epistemic goal. Rather than wanting to minimize incorrect beliefs, our goal could also be to maximize correct beliefs. Using a decision-theoretic framework, we have seen how, under this interpretation, belief-formations that are arbitrary, or that lack sufficient reason to think that it is correct, can be rational. This invalidates the argumentation from White [113, 114] and Feldman [29] for a non-permissive conception of rationality.

What does this mean for the conciliatory view and their claim that it cannot be rational to retain one's belief in the face of peer disagreement? It means that this claim is based on a conception of rationality that is optional, and no longer enforced. For there is, at least without

further argumentation to the contrary, a viable alternative conception of rationality available on which it *can* be rational to retain one's belief in the face of peer disagreement.

CONCLUSION

We have investigated the conciliatory view on peer disagreement. Our target question was: what are the conditions and assumptions that need to be in place in order for the conciliatory view to be the appropriate view on peer disagreement—in other words, what is required to make the conciliatory view *work*? And a recurring theme was that substantial further assumptions were required in this respect, and that these further assumptions resulted in an ever decreasing area of applicability for the conciliatory view. By way of conclusion, I want to highlight the main results and take-away points of the investigation.

As our starting point, we identified the conciliatory view as making two claims with respect to peer disagreements. The first claim was that a peer disagreement entails that something is *wrong*—meaning that one of the disagreeing peers must have a belief that is not correct, or that was not arrived at in a rational way. The second claim was that a peer disagreement means that something must be *done*—meaning that peer disagreements are not rationally sustainable, and that some form of revision is required.

In chapter 2, we argued that the validity of these two claims depends on the kind of disagreement in question, on the extent of epistemic similarity between the disagreeing peers, and on how rationality is further understood. More specifically, we said that the peer disagreements that fall under the scope of the conciliatory view should not suffer from an excusing kind of *relativity*, and the conception of rationality underlying the conciliatory view cannot be understood *permissively*.

In chapter 3, we investigated what needs to be assumed about the *disagreement* of two peers in this respect. The central message was that the peer disagreements for which the conciliatory view is appropriate should be disagreements that are *objective*—that is, disagreements that are about a single proposition that has an objective, subject-independent truth-value. Because if a peer disagreement is not objective, but *subjective*—meaning that what is correct to believe regarding the topic under discussion somehow depends on the observing subject—then the two claims of the conciliatory view are out of place. And we argued that this presented the defenders of the conciliatory view with something of a dilemma regarding the scope of the conciliatory view. Because either they should limit the scope of the conciliatory view to only cases of peer disagreement that are evidently objective. The downside of this, however, is that it makes the conciliatory view a fairly triv-

ial position. Or the defenders of the conciliatory view can widen the scope of the conciliatory view so that it also ranges over the more interesting cases of peer disagreement. But this has as a downside that it commits the conciliatory view to a contentious assumption, namely that these cases of disagreement are objective. Either option forms a limitation on the scope of the conciliatory view.

In chapter 4, we investigated what needs to be assumed about disagreeing *peers* with respect to the conciliatory view. More specifically, we zoomed in on the epistemic properties that two peers need to have in common in order for it to be impossible for them to rationally arrive at disagreeing beliefs—particularly in cases of underdetermination where the shared evidence of two peers can be compatible with disagreeing beliefs. And again we found something of a dilemma for the defenders of the conciliatory view. For either they can maintain that in cases of underdetermination there is in fact only one rational belief state available for the disagreeing peers, namely suspension of judgment. The drawback of this is that it turns the conciliatory view into a particularly skeptical position. Or the defenders of the conciliatory view should put further constraints on the required epistemic similarity of two peers so that, because of their increased similarity, the same single belief state is rational for them regarding the proposition under discussion. We have seen, however, that this imposes rather heavy demands on the epistemic similarity of peers—it requires them to be in effect identical versions of one and the same epistemic agent—which makes actual peer disagreements an increasingly rare phenomenon. Either option, again, further constrains the conciliatory view.

And finally, in chapter 5, we investigated how *rationality* should be understood for the conciliatory view to apply. We argued that the conciliatory view requires a *non-permissive* conception of rationality, meaning that rationality is understood to be such that it does not permit adopting or retaining a belief state when there is insufficient reason to think that this belief state is correct rather than a rival, alternative belief state. On this conception, rationality does not allow retaining one's belief in the face of peer disagreement. However, we then confronted the conciliatory view with a *permissive* conception of rationality, on which it *can* be rational to retain one's belief in the face of peer disagreement. We developed this permissive conception of rationality from the pragmatic, decision-theoretic starting point that the rationality of a belief formation depends on the amount of utility it yields with respect to one's epistemic goals. And the central point of the chapter was that the case for the conciliatory view's non-permissive conception of rationality remains inconclusive in light of this more permissive alternative.

Thus, our investigation of the notions of disagreement, peerhood, and rationality behind the conciliatory view has revealed that the scope of

the conciliatory view is rather limited. In order to make good on their two main claims—that a peer disagreement means that something is wrong, and that as a result something must be done—the defenders of the conciliatory view must paint themselves into a fairly confined corner. What does this corner look like? It is a corner in which disagreements are about issues that are objective, between peers that are epistemically very similar, under a strict, non-permissive conception of rationality that is not enforced.

Now, it may look as if this turns the conciliatory view into a position that is not very interesting, and perhaps even trivial. Indeed, one might wonder whether the peer disagreements over which the conciliatory view ranges ever occur in the real world at all. Be that as it may, I think that there is something of value that can be extracted from all of this. Let me end the dissertation with this final observation.

In the introduction we drew a comparison between Cartesian skepticism and the conciliatory view. We said that the conciliatory view can be seen as the social exponent of Cartesian skepticism, whereby the role of a skeptical hypothesis is played by the disagreeing belief of one's peer. But there is another interesting connection to be made. The Cartesian method of systematic doubt, and the conjuring up of far-fetched skeptical hypotheses, is not something that has much use in our everyday lives. But it *does* have much use in philosophy, because it is a tool, a thought experiment, with which the concept of knowledge can be further investigated. Much in the same way, or so I have argued, are we forced to concede that the conciliatory view, and its phenomenon of peer disagreement, hardly play a role in our everyday lives. But this doesn't mean that it is of no value. Because the idea of peer disagreement, and the conciliatory view's analysis of it, are tools with which we can further investigate important concepts in social epistemology, such as disagreement, peerhood, and rationality. I hope that with this dissertation's charting of some parts of the conceptual space, I have contributed something to that project.

SAMENVATTING

Dit proefschrift gaat over onenigheid. Meer in het bijzonder, het gaat over onenigheid tussen *peers*. En nog meer in het bijzonder, het gaat over een bepaalde theorie—de zogenaamde *conciliatory view*—die zegt dat onenigheid tussen *peers* niet rationeel kan zijn. Voordat ik verderga met de samenvatting van dit onderzoek, eerst wat meer achtergrond.

We worden voortdurend geconfronteerd met de overtuigingen van andere mensen. Je hoort een politicus verklaren dat het allemaal wel meevalt met de opwarming van de aarde, de weervrouw zegt dat het morgen gaat regenen, en een vriend van je gelooft dat er niet zoiets is als vrije wil. Een interessante epistemologische vraag in dit verband is: hoe zouden we onze eigen overtuigingen moeten laten beïnvloeden door de overtuigingen van anderen?

Dit is in eerste instantie afhankelijk van ons doel. Als we simpelweg onze eigen overtuigingen willen hebben, zonder ook maar enig belang te hechten aan hun plausibiliteit of coherentie, dan hoeven we ons maar weinig aan te trekken van andermans mening. Aan de andere kant, als we bijvoorbeeld alleen maar overtuigingen willen hebben waar andere mensen het mee eens zijn, dan moeten we andermans mening juist nauwlettend in de gaten houden.

In onze epistemologische context wordt traditioneel verondersteld dat het ons doel is om overtuigingen te hebben die *correct* zijn—we willen geloven wat waar is, en we willen niet geloven wat onwaar is (of we willen daarvan geloven dat het onwaar is). In dat licht kunnen we onze vraag wat preciezer stellen: hoe zouden we onze eigen overtuigingen moeten laten beïnvloeden door de overtuigingen van anderen, gegeven dat we willen dat onze overtuigingen correct zijn? In epistemologisch jargon: wat is, gegeven dat doel, een *rationele* manier om met de overtuigingen van anderen om te gaan?

In sommige gevallen lijkt dit eenvoudig genoeg. Als de overtuiging van een ander op geen enkele manier conflicteert met onze eigen overtuigingen, dan is het doorgaans rationeel om deze overtuiging over te nemen. Bijvoorbeeld, als de weervrouw zegt dat het morgen gaat regenen, en ik heb verder geen enkele informatie die hiermee in strijd is, dan lijkt het rationeel te zijn om de overtuiging te vormen dat het morgen gaat regenen.

Maar als de overtuiging van een ander *wel* conflicteert met onze eigen overtuigingen, dan wordt de zaak ingewikkelder. Bijvoorbeeld, als een politicus zegt dat het wel meevalt met de opwarming van de aarde, en

ik geloof juist dat klimaatverandering een serieus probleem is, dan is het niet direct duidelijk wat rationeel is. Stel nou dat de overtuiging van die politicus de juiste is?

Toch hoeven zulke gevallen niet al te problematisch te zijn. Als ik bijvoorbeeld weet dat die politicus banden heeft met oliemaatschappijen, of als ik kijk naar de overweldigende consensus die er is in de wetenschap ten aanzien van klimaatverandering, dan lijkt het duidelijk rationeel om de overtuiging van de politicus naast me neer te leggen, en bij mijn eigen standpunt te blijven. Dat wil zeggen, als er in een geval van onenigheid goede redenen zijn om te denken dat het jouw overtuiging is die correct is, dan is op het eerste gezicht rationeel om aan deze overtuiging vast te houden.

Maar soms is dit niet zo inzichtelijk, en dit zijn de problematische gevallen van onenigheid die centraal staan in dit proefschrift. In sommige meningsverschillen is het namelijk zo dat we geen goede redenen hebben om te denken dat onze eigen overtuiging de juiste is, of dat we net zulke goede redenen hebben om te denken dat de conflicterende overtuiging van de ander de juiste is. Stel bijvoorbeeld dat ik geloof dat we een vrije wil hebben, en dat een vriend van mij gelooft dat we geen vrije wil hebben. En stel dat we deze kwestie tot in de diepste details hebben bediscussieerd, dat we alle argumenten voor en tegen hebben besproken, en dat ik uiteindelijk geen doorslaggevende reden heb gevonden om te denken dat mijn overtuiging de juiste is—op basis van het bewijsmateriaal dat we hebben verzameld zou jouw overtuiging ook correct kunnen zijn. Maar toch geloof ik nog steeds dat we een vrije wil hebben, en jij gelooft dit niet.

Dit soort meningsverschillen staan in de epistemologie bekend als onenigheden tussen *peers*. De term *peer* moet hierin gezien worden als een technische term die bedoeld is om een bepaalde mate van gelijkheid te vatten tussen twee personen—en daarbij moet vooral gedacht worden aan epistemische competenties, zoals intelligentie, achtergrondinformatie, beoordelingsvermogen, et cetera. Concreter gezegd, als iemand het met je oneens is, en deze persoon is jouw *peer*, dan is deze persoon gelijk aan jou zodanig dat er net zoveel reden is om te denken dat het standpunt van deze persoon correct is als dat jouw eigen standpunt correct is. Paradigmatische voorbeelden van onenigheden tussen *peers* zijn meningsverschillen tussen gelijkwaardige wetenschappers, juristen, medici, politici, en filosofen, om er een aantal te noemen.

In de epistemologie is er in de afgelopen tien jaar flink gedebatteerd over onenigheid tussen *peers*. De centrale vraag waar het debat om draait is: kunnen dit soort meningsverschillen *rationeel* zijn? Dat wil zeggen, kan het rationeel zijn om in een meningsverschil met een *peer* te volharden, wetende dat deze persoon langs de relevante epistemische competenties jouw gelijke is, én gegeven ons doel om overtuigingen

te vormen die correct zijn? Of is het in dit soort gevallen misschien rationeler om, gezien het feit dat er evenveel reden is om te denken dat de overtuiging van de ander correct is, je eigen overtuiging voorlopig op te schorten?

De *conciliatory view*, die een prominente plek heeft in het debat, en die het onderwerp vormt van dit proefschrift, zegt het laatste. Volgens de *conciliatory view* kan het niet rationeel zijn om een meningsverschil te hebben met een *peer*, en is in zo'n geval het opschorten van je overtuiging de enige rationele wijze van handelen. Dit zou dus betekenen dat al, of tenminste veel van, de bestaande meningsverschillen tussen gelijkwaardige wetenschappers, juristen, medici, politici, en filosofen, niet rationeel zijn. Een verregaande claim.

In dit proefschrift heb ik deze *conciliatory view* verder onderzocht, en gekeken in hoeverre deze positie houdbaar is, en welke verdere aannames daar eventueel voor nodig zouden zijn. Dat wil zeggen, ik heb onderzocht wat er voor nodig is om de *conciliatory view* te laten werken.

In hoofdstuk 2 heb ik eerst precieze positie en de argumentatie van de *conciliatory view* nader geanalyseerd. De uitkomst van dit hoofdstuk was dat de houdbaarheid van de *conciliatory view* volledig afhankelijk is van het soort van meningsverschil dat de *peers* in kwestie hebben, van hoe deze *peers* exact gedefinieerd zijn, en van wat er precies onder rationaliteit verstaan wordt. En deze drie variabelen heb ik vervolgens onderzocht in de verdere drie hoofdstukken.

In hoofdstuk 3 heb ik onderzocht wat er precies verondersteld moet worden over een *meningsverschil* wil de *conciliatory view* van toepassing zijn. De conclusie was dat de *conciliatory view* alleen betrekking kan hebben op meningsverschillen waarin slechts één van de tegenover elkaar staande overtuigingen correct kan zijn. Dit is interessant omdat hierdoor veel van de meer actuele, hardnekkige gevallen van onenigheid—zoals die er zijn in de wetenschap, de politiek, de ethiek, of de filosofie—buiten het bereik vallen van de *conciliatory view*. In die laatste gevallen is het namelijk vaak juist een open vraag of slechts één van de betrokken overtuigingen correct kan zijn—vaak kan er in dat soort gevallen namelijk ook een bepaalde subjectieve factor aangeroepen worden waarlangs *beide* overtuigingen, relatief gezien, correct zijn.

In hoofdstuk 4 heb ik onderzocht wat er precies verondersteld moet worden over *peers* wil de *conciliatory view* van toepassing zijn. De uitkomst hiervan heeft de vorm van een dilemma. Om er inderdaad voor te zorgen dat meningsverschillen tussen *peers* niet rationeel kunnen zijn, moet de *conciliatory view* ofwel een zeer strenge definitie van *peer* hanteren (zodat het vanwege de volledige epistemische gelijkheid van *peers* zo is dat hun meningsverschil niet rationeel kan zijn), of anders een zeer strenge definitie van *rationaliteit* (zodat het vanwege deze notie van rationaliteit zo is dat een dergelijk meningsverschil niet ra-

tioneel kan zijn). Deze uitkomst is interessant omdat beide hoornen van het dilemma een verdere inperking van het bereik van de *conciliatory view* met zich meebrengen.

In hoofdstuk 5 heb ik onderzocht wat er precies verondersteld moet worden over *rationaliteit* wil de *conciliatory view* van toepassing zijn. Dit onderzoek bestond uit drie stappen. Eerst heb ik de notie van rationaliteit onder de *conciliatory view* geïdentificeerd als zijnde *non-permissief*, wat er globaal op neerkomt dat het rationeel gezien niet is toegestaan bij een overtuiging te blijven in gevallen van onenigheid tussen *peers*. Vervolgens heb ik een meer *permissieve* notie van rationaliteit ontwikkeld die een dergelijke gang van zaken wél toestaat. En tenslotte heb ik beargumenteerd dat er geen non-circulaire reden is om de non-permissieve conceptie van rationaliteit te verkiezen boven de meer permissieve conceptie.

En hoofdstuk 6 vormde de conclusie van dit proefschrift, met als centrale boodschap dat de *conciliatory view* een veel beperktere reikwijdte heeft dan in het debat verondersteld wordt.

BIBLIOGRAPHY

- [1] Maria Baghramian and Adam Carter. “Relativism.” In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Winter 2016. Metaphysics Research Lab, Stanford University, 2016.
- [2] Nathan Ballantyne and E. J. Coffman. “Uniqueness, Evidence, and Rationality.” In: *Philosophers’ Imprint* 11.18 (2011).
- [3] Michael Bergmann. “Rational Disagreement After Full Disclosure.” In: *Episteme* 6.3 (2009), pp. 336–353.
- [4] Tomas Bogardus. “A Vindication of the Equal-Weight View.” In: *Episteme* 6.3 (2009), pp. 324–335.
- [5] Paul Boghossian. “Three Kinds of Relativism.” In: *A Companion to Relativism*. Ed. by Steven Hales. Blackwell, 2011.
- [6] David Bourget and David Chalmers. “What Do Philosophers Believe?” In: *Philosophical Studies* 170 (2014), pp. 465–500.
- [7] William Brewer and Bruce Lambert. “The Theory-Ladenness of Observation and the Theory-Ladenness of the Rest of the Scientific Process.” In: *Philosophy of Science* 3.September (2001), pp. 176–186.
- [8] Herman Cappelen and Torfinn Huvenes. “Relative Truth.” In: *Oxford Handbook of Truth*. Ed. by Michael Glanzberg. Oxford University Press, forthcoming.
- [9] Adam Carter. “Disagreement, Relativism and Doxastic Revision.” In: *Erkenntnis* 79.1 (2013), pp. 1–18.
- [10] David Chalmers. “Verbal Disputes.” In: *Philosophical Review* 120.4 (2011), pp. 515–566.
- [11] David Chalmers, David Manley, and Ryan Wasserman. *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford University Press, 2009.
- [12] David Christensen. “Epistemology of Disagreement: The Good News.” In: *The Philosophical Review* 116.2 (2007), pp. 187–217.
- [13] David Christensen. “Disagreement as Evidence: The Epistemology of Controversy.” In: *Philosophy Compass* 4.5 (2009), pp. 756–767.
- [14] David Christensen. “Disagreement, Question-Begging and Epistemic Self-Criticism.” In: *Philosophers’ Imprint* 11.6 (2011), pp. 1–22.

- [15] David Christensen. "Conciliation, Uniqueness and Rational Toxicity." In: *Noûs* 49.2 (2014), pp. 1–20.
- [16] Stewart Cohen. "A Defense of the (Almost) Equal Weight View." In: *The Epistemology of Disagreement: New Essays*. Ed. by David Christensen and Jennifer Lackey. Oxford University Press, 2013, pp. 98–117.
- [17] Jeroen De Ridder. "Why Only Externalists Can Be Steadfast." In: *Erkenntnis* 79.1 (2014), pp. 185–199.
- [18] René Descartes and John Cottingham. *René Descartes: Meditations on first philosophy: With selections from the objections and replies*. Cambridge University Press, 2013.
- [19] Igor Douven. "Uniqueness Revisited." In: *American Philosophical Quarterly* 46.4 (2009), pp. 347–361.
- [20] Fred Dretske. "Epistemic Operators." In: *Journal of Philosophy* 67.24 (1970), pp. 1007–1023.
- [21] Pierre Duhem. *The Aim and Structure of Physical Theory*. Princeton, Princeton University Press, 1954.
- [22] Matti Eklund. "Carnap and Ontological Pluralism." In: *Metametaphysics: New Essays on the Foundations of Ontology*. Ed. by David John Chalmers and David Manley and Ryan Wasserman. Oxford University Press, 2009, pp. 130–56.
- [23] Adam Elga. "Reflection and Disagreement." In: *Noûs* 41.3 (2007), pp. 478–502.
- [24] Adam Elga. "How to Disagree About How to Disagree." In: *Disagreement*. Ed. by Ted Warfield and Richard Feldman. Oxford University Press, 2010, pp. 175–186.
- [25] Catherine Elgin. "Persistent Disagreement." In: *Disagreement*. Ed. by Richard Feldman and Ted Warfield. Oxford University Press, 2010, pp. 53–68.
- [26] David Enoch. "Not Just a Truthometer: Taking Oneself Seriously (but Not Too Seriously) in Cases of Peer Disagreement." In: *Mind* 119.476 (2010), pp. 953–997.
- [27] David Enoch. *Taking Morality Seriously: A Defense of Robust Realism*. Oxford University Press, 2011.
- [28] Richard Feldman. "Epistemological Puzzles About Disagreement." In: *Epistemology Futures*. Ed. by Stephen Hetherington. Oxford University Press, 2006, pp. 216–236.
- [29] Richard Feldman. "Reasonable Religious Disagreements." In: *Philosophers Without Gods: Meditations on Atheism and the Secular*. Ed. by Louise Antony. Oxford University Press, 2007, pp. 194–214.

- [30] Richard Feldman. “Evidentialism, Higher-Order Evidence, and Disagreement.” In: *Episteme* 6.3 (2009), pp. 294–312.
- [31] Richard Feldman and Ted Warfield. *Disagreement*. Oxford University Press, 2010.
- [32] Branden Fitelson and David Jehle. “What is the “Equal Weight View”?” In: *Episteme* 6.3 (2009), pp. 280–293.
- [33] Richard Foley. *Intellectual Trust in Oneself and Others*. Cambridge University Press, 2001.
- [34] Bryan Frances. “When a Skeptical Hypothesis is Live.” In: *Noûs* 39.4 (2005), pp. 559–595.
- [35] Richard Fumerton. “You Can’t Trust a Philosopher.” In: *Disagreement*. Ed. by Richard Feldman and Ted Warfield. Oxford University Press, 2010, pp. 91–110.
- [36] Peter Gärdenfors. *Knowledge in flux: Modeling the dynamics of epistemic states*. The MIT press, 1988.
- [37] Peter Gärdenfors and David Makinson. “Revisions of knowledge systems using epistemic entrenchment.” In: *Proceedings of the 2nd conference on Theoretical aspects of reasoning about knowledge*. Morgan Kaufmann Publishers Inc. 1988, pp. 83–95.
- [38] Michael Glanzberg. “Context, Content, and Relativism.” In: *Philosophical Studies* 136.1 (2007), pp. 1–29.
- [39] Alvin Goldman and Thomas Blanchard. “Social Epistemology.” In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Winter 2016. Metaphysics Research Lab, Stanford University, 2016.
- [40] Daniel Greco and Brian Hedden. “Uniqueness and Metaepistemology.” In: *Journal of Philosophy* (forthcoming).
- [41] Gary Gutting. *Religious Belief and Religious Skepticism*. University of Notre Dame Press, 1982.
- [42] Steven Hales. “Motivations for Relativism as a Solution to Disagreements.” In: *Philosophy* 89.1 (2014), pp. 63–82.
- [43] Gilbert Harman. “Moral Relativism Defended.” In: *Philosophical Review* 84.1 (1975), pp. 3–22.
- [44] Gilbert Harman. “Moral Relativism.” In: *Moral Relativism and Moral Objectivity*. Blackwell Publishers, 1996, pp. 3–64.
- [45] Remco Heesen and Van der Kolk. Pieter. “A Game-Theoretic Approach to Peer Disagreement.” In: *Erkenntnis* (2016), pp. 1–24.
- [46] Eli Hirsch. “Quantifier Variance and Realism.” In: *Philosophical Issues* 12.1 (2002), pp. 51–73.

- [47] Eli Hirsch. "Ontology and Alternative Languages." In: *Metametaphysics: New Essays on the Foundations of Ontology*. Ed. by David Chalmers, David Manley, and Ryan Wasserman. Oxford University Press, 2009, pp. 231–258.
- [48] William James. "The Will to Believe." In: *The Will to Believe and Other Essays in Popular Philosophy*. New York: Longmans, Green, and Co., 1897, pp. 1–15.
- [49] Richard Jeffrey. *The Logic of Decision*. University of Chicago Press, 1983.
- [50] David Kaplan. "Demonstratives." In: *Themes From Kaplan*. Ed. by Joseph Almog and John Perry and Howard Wettstein. Oxford University Press, 1989, pp. 481–563.
- [51] Thomas Kelly. "The Epistemic Significance of Disagreement." In: *Oxford Studies in Epistemology*. Ed. by Tamar Szabó Gendler and John Hawthorne. Vol. 1. Oxford University Press, 2005, pp. 167–196.
- [52] Thomas Kelly. "Peer Disagreement and Higher-Order Evidence." In: *Disagreement*. Ed. by Richard Feldman and Ted Warfield. Oxford University Press, 2010, pp. 111–174.
- [53] Thomas Kelly. "Evidence Can Be Permissive." In: *Contemporary Debates in Epistemology*. Ed. by Matthias Steup and John Turri. Blackwell, 2013, pp. 298–312.
- [54] Thomas Kelly. "Evidence." In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Fall 2014. Metaphysics Research Lab, Stanford University, 2014.
- [55] Christoph Kelp and Igor Douven. "Sustaining a Rational Disagreement." In: *EPSA Philosophy of Science: Amsterdam 2009*. Ed. by H. DeRegt; S. Hartmann; S. Okasha. Springer, 2012, pp. 101–110.
- [56] Nathan King. "Disagreement: What's the Problem? Or A Good Peer is Hard to Find." In: *Philosophy and Phenomenological Research* 85.2 (2012), pp. 249–272.
- [57] Philip Kitcher. "The Division of Cognitive Labor." In: *Journal of Philosophy* 87.1 (1990), pp. 5–22.
- [58] Max Kölbel. "Faultless Disagreement." In: *Proceedings of the Aristotelian Society* 104.1 (2004), pp. 53–73.
- [59] Amir Konigsberg. "The Problem with Uniform Solutions to Peer Disagreement." In: *Theoria* 79.1 (2012), pp. 96–126.
- [60] Matthew Kopec and Michael Titelbaum. "The Uniqueness Thesis." In: *Philosophy Compass* 11.4 (2016), pp. 189–200.

- [61] Hilary Kornblith. "Belief in the Face of Controversy." In: *Disagreement*. Ed. by Richard Feldman and Ted Warfield. Oxford University Press, 2010, pp. 29–52.
- [62] Thomas S. Kuhn. *The Structure of Scientific Revolutions*. University of Chicago Press, 1962.
- [63] Thomas S. Kuhn. "Reflections on my Critics." In: *Criticism and the Growth of Knowledge*. Vol. 4. Cambridge University Press, 1970.
- [64] Thomas S. Kuhn. "Objectivity, Value Judgment, and Theory Choice." In: *The Essential Tension*. University of Chicago Press, 1977, pp. 320–39.
- [65] Jennifer Lackey. "What Should We Do When We Disagree?" In: *Oxford Studies in Epistemology*. Ed. by Tamar Szabó Gendler and John Hawthorne. Vol. 3. Oxford University Press, 2008, pp. 274–293.
- [66] Jennifer Lackey. "A Justificationist View of Disagreement's Epistemic Significance." In: *Social Epistemology*. Ed. by Alan Millar, Adrian Haddock, and Duncan Pritchard. Vol. 53. Oxford University Press, 2010, pp. 145–154.
- [67] Peter Lasersohn. "Context Dependence, Disagreement, and Predicates of Personal Taste." In: *Linguistics and Philosophy* 28.6 (2005), pp. 643–686.
- [68] Maria Lasonen-Aarnio. "Disagreement and Evidential Attenuation." In: *Noûs* 47.4 (2013), pp. 767–794.
- [69] Larry Laudan. *Science and Values: The Aims of Science and Their Role in Scientific Debate*. University of California Press, 1984.
- [70] Isaac Levi. *Gambling with Truth*. Cambridge, MIT Press, 1967.
- [71] David Lewis. "Index, Context, and Content." In: *Philosophy and Grammar*. Ed. by Stig Kanger and Sven Öhman. Reidel, 1980, pp. 79–100.
- [72] John MacFarlane. "Relativism and Disagreement." In: *Philosophical Studies* 132.1 (2007), pp. 17–31.
- [73] John MacFarlane. *Assessment Sensitivity: Relative Truth and its Applications*. Oxford University Press, 2014.
- [74] Jonathan Matheson. "Conciliatory Views of Disagreement and Higher-Order Evidence." In: *Episteme* 6.3 (2009), pp. 269–279.
- [75] Jonathan Matheson. "The Case for Rational Uniqueness." In: *Logic and Episteme* 2.3 (2011), pp. 359–373.

- [76] Jonathan Matheson. "Are Conciliatory Views of Disagreement Self-Defeating?" In: *Social Epistemology* 29.2 (2015), pp. 145–159.
- [77] Jonathan Matheson. "Disagreement and Epistemic Peers." In: *Oxford Handbooks Online*. 2015, pp. 1–28.
- [78] Jonathan Matheson and Brandon Carey. "How Skeptical is the Equal Weight View?" In: *Disagreement and Skepticism*. Ed. by Diego Machuca. Routledge, 2013, pp. 131–149.
- [79] Christopher Meacham. "Impermissive Bayesianism." In: *Erkenntnis* (2013), pp. 1–33.
- [80] Kevin Meeker and Philip Quinn. *The Philosophical Challenge of Religious Diversity*. Oxford University Press, 1999.
- [81] Sidney Morgenbesser and Edna Ullmann-Margalit. "Picking and Choosing." In: *Social Research* 44.4 (1977), pp. 757–785.
- [82] Joe Morrison. "Just How Controversial is Evidential Holism?" In: *Synthese* 173.3 (2010), pp. 335–352.
- [83] Sarah Moss. "Scoring Rules and Epistemic Compromise." In: *Mind* 120.480 (2011), pp. 1053–1069.
- [84] Richard Pettigrew. "An Improper Introduction to Epistemic Utility Theory." In: *Proceedings of EPSA: Amsterdam '09*. Ed. by Henk de Regt, Samir Okasha, and Stephan Hartmann. Springer, 2011, pp. 287–301.
- [85] Richard Pettigrew. "Jamesian Epistemology Formalised: An Explication of 'the Will to Believe'." In: *Episteme* 13.3 (2016), pp. 253–268.
- [86] Abelard Podgorski. "Dynamic Permissivism." In: *Philosophical Studies* 173.7 (2016), pp. 1923–1939.
- [87] Karl R Popper. "The Rationality of Scientific Revolutions." In: *Scientific Revolutions: Progress and Obstacles to Progress*. Ed. by R. Harré. Oxford: Clarendon Press, 1975, pp. 72–101.
- [88] Jesse J. Prinz. *The Emotional Construction of Morals*. Oxford University Press, 2007.
- [89] Duncan Pritchard. "Recent Work on Radical Skepticism." In: *American Philosophical Quarterly* 39.3 (2002), pp. 215–257.
- [90] Hilary Putnam. *The Many Faces of Realism*. Open Court, 1987.
- [91] W. V. O. Quine. "Two Dogmas of Empiricism." In: *Philosophical Review* 60.1 (1951), pp. 20–43.
- [92] W. V. O. Quine. "On Empirically Equivalent Systems of the World." In: *Erkenntnis* 9.3 (1975), pp. 313–28.

- [93] W. V. O. Quine and Joseph Ullian. *The Web of Belief*. Random House, 1978.
- [94] Gideon Rosen. “Nominalism, Naturalism, Epistemic Relativism.” In: *Noûs* 35.15 (2001), pp. 69–91.
- [95] C. Wade Savage. *Minnesota Studies in the Philosophy of Science, Vol 14: Scientific Theories*. University of Minnesota Press, 1990.
- [96] Mark Schroeder. *Noncognitivism in Ethics*. Routledge, 2010.
- [97] Eric Schwitzgebel. “Belief.” In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Summer 2015. Metaphysics Research Lab, Stanford University, 2015.
- [98] Theodore Sider. “Ontological Realism.” In: *Metametaphysics: New Essays on the Foundations of Ontology*. Ed. by David Chalmers and David Manley and Ryan Wasserman. Oxford University Press, 2009.
- [99] Alex Silk. *Discourse Contextualism: A Framework for Contextualist Semantics and Pragmatics*. Oxford University Press, 2016.
- [100] Ernest Sosa. “The Epistemology of Disagreement.” In: *Social Epistemology*. Ed. by Adrian Haddock, Alan Millar, and Duncan Pritchard. Oxford University Press, 2010.
- [101] Kyle Stanford. “Underdetermination of Scientific Theory.” In: *The Stanford Encyclopedia of Philosophy*. Ed. by Edward N. Zalta. Spring 2016. 2016.
- [102] Isidora Stojanovic. “Talking About Taste: Disagreement, Implicit Arguments, and Relative Truth.” In: *Linguistics and Philosophy* 30.6 (2007), pp. 691–706.
- [103] Michael Strevens. “The Bayesian Treatment of Auxiliary Hypotheses.” In: *British Journal for the Philosophy of Science* 52.3 (2001), pp. 515–537.
- [104] Amie Thomasson. “Answerable and Unanswerable Questions.” In: *Metametaphysics: New Essays on the Foundations of Ontology*. Ed. by David Chalmers, David Manley, and Ryan Wasserman. Oxford University Press, 2009.
- [105] Michael Titelbaum and Matthew Kopec. “Plausible Permissivism.”
- [106] Peter Unger. *Ignorance: A Case for Scepticism*. Oxford University Press, 1975.
- [107] Bas Van Fraassen. *The Scientific Image*. Oxford University Press, 1980.
- [108] Bas Van Fraassen. *Laws and Symmetry*. Oxford University Press, 1989.

- [109] Peter Van Inwagen. "We're Right. They're Wrong." In: *Disagreement*. Ed. by Richard Feldman and Ted A. Warfield. OUP Oxford, 2010, pp. 10–28.
- [110] David Velleman. *Foundations for Moral Relativism*. OpenBook Publishers, 2013.
- [111] Brian Weatherson. "Disagreements, Philosophical and Otherwise." In: *The Epistemology of Disagreement: New Essays*. Ed. by Jennifer Lackey and David Christensen. Oxford University Press, 2013.
- [112] Ralph Wedgwood. "The Moral Evil Demons." In: *Disagreement*. Ed. by Richard Feldman and Ted Warfield. Oxford University Press, 2010.
- [113] Roger White. "Epistemic Permissiveness." In: *Philosophical Perspectives* 19.1 (2005), pp. 445–459.
- [114] Roger White. "Evidence Cannot Be Permissive." In: *Contemporary Debates in Epistemology*. Ed. by Matthias Steup and John Turri. Blackwell, 2013, pp. 312–323.
- [115] Christopher Willard-Kyle. "Do Great Minds Really Think Alike?" In: *Synthese* (forthcoming), pp. 1–38.
- [116] David Wong. *Natural Moralities: A Defense of Pluralistic Relativism*. Oxford University Press, 2006.
- [117] Alex Worsnip. "Disagreement About Disagreement? What Disagreement About Disagreement?" In: *Philosophers' Imprint* 14.18 (2014), pp. 1–20.

